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EDITORIAL.

JOHN F. HENRY, CURRAN & CO. are reported to have resumed business at their former location, 8 College Place, in this city.

THE Soap Factory of Colgate & Co., in Jersey City, was partially destroyed by fire on the morning of the 6th inst., the loss being estimated at $200,000, fully covered by insurance. The fancy soap factory, and the establishment for manufacturing perfumery, were not injured, and the fact that their large tanks were not so much damaged as to require rebuilding, leads them to expect to be able to fill orders for laundry soaps with little delay.

THE following error in our article on pages 129 and 130 of last number requires correction: On the second column, fourth line from the top, erase "October 15th," and write, instead, March 18th, 1829.

The paragraph, so corrected, should have followed the eighteenth line of the second column on page 129, but the alteration of the date, as above indicated, will prevent any serious misunderstanding.

THE communication of Prof. Lunsford P. Yandell to the Louisville *Medical News*, on the subject of "bad medicines," which, he says, are frequently dispensed at the present day, has drawn out an interesting series of letters from pharmacists and physicians which we regret our inability to reprint. Prof. Emil Scheffer's complaint that the ability of the large number of well-educated pharmacists to be found at present throughout the country is unrecognized, and that—

"of the hundreds of preparations in their stores, made conscientiously according to the U. S. Pharmacopœia, hardly one-tenth are used nowadays; but, instead of them, Mr. H. H.'s elixir, Mr. So-and-So's pills, Mr. X.'s fluid extracts, syrups, etc.,"—

is without doubt quite true and so is the statement of "Saddlebags," that—

"another evil is the astounding multiplicity of forms and shapes into which different manufacturers are constantly putting articles that ought to possess a standard of unvarying strength and of definite composition, so that, busied and hurried as we all are likely to be, the proper dose and standard preparation should be as fixed in the mind for instantaneous prescription as in quinine and calomel. Yet each 'house' has its own standard of strength and method of concoction, with no recognized standard to govern the dose or form of preparation, and the prescriber is constantly in danger of *burying his errors*. . . . Some of these 'houses' have appreciated this demoniacal nuisance, and have issued 'dose books' of their own preparations, which, indeed, are a great mercy to patient and prescriber."

Another evil complained of by Saddlebags is the worthlessness of many preparations, and he cites guarana and its elixir and fluid extract as examples. He says:—

"The powdered drug possesses some quite valuable properties, and an elixir, *properly made*, is probably equally efficacious as a remedy for headache. Every particle, however, that I have ever tried in the form of fluid extract has lost all virtue, except that of an astringent, which it possesses to a marked degree, and the elixir made from the *fluid extract* is perfectly worthless for anything. He excepts, however, an elixir made by one firm (whom he purposely avoids mentioning), 'without first incubating as a fluid extract,' and says in conclusion, 'doubtless many more are as totally ruined by the cooking process.'"

Before we proceed to the main point to which we desire to direct attention, we will say that the antiquated formula of—

"a handful of elecampane, a handful of rue, as much hoarhound as you can grab in your thumb and forefinger, put into a pint of water and *bile* for half an hour, and give a teacupful every two weeks,"

is, apparently, the extent of his pharmaceutical knowledge; for, if he were at all familiar with the subject, he would know that elixirs are not "cooked," nor fluid extracts either, for that matter, and the "incubation" process, as applied to the manufacture of pharmaceutical products, is restricted, in a figurative sense, to graduates in pharmacy.

None of the writers whose letters are published in the series referred to appear to have appreciated what seems to us the *fons et origo*

mali, or the "true inwardness" of all this trouble. Some years ago, this difficulty was apprehended, and our predecessors in medicine and pharmacy undertook to establish a national standard for pharmaceutical processes, and provided for its revision and amendment, at what appeared to them, in their time, suitable intervals. Not only have the intervals proved too long to enable the national standard to keep pace with the demands of trade and the requirements of medical practice, but those who have exercised a controlling influence in the recent revisions of the Pharmacopœia appear to have entirely failed to recognize the fact that the work was rapidly becoming less looked to as a standard; that a multitude of remedies were coming into use, concerning which the Pharmacopœia gave no information whatever, and that many pharmacopœial preparations, on the other hand, were less in demand than formerly; and when suggestions were offered to them, having in view a correction of the fault, their adoption was obstinately and successfully opposed. The result is, that every manufacturer *is obliged* to follow his own methods in the making of fluid extracts, elixirs, syrups, etc., and he manufactures them because there is a *demand* for them in preference to a multitude of articles which are officinal, it is true, and which, therefore, every conscientious apothecary is bound to keep on hand, but which are rarely called for, and almost forgotten, if, indeed, the younger members of the medical profession ever heard of them at all.

The course of instruction in most medical schools is lamentably deficient in all that relates to pharmacopœial preparations. The properties of the simple drug and the doses of the leading preparations are about all that is ever acquired, and it is not until the young practitioner has left his college and entered upon his field of labor, that he commences to learn much about the nature and mode of action of the very agents upon which much of his success in his calling is to depend. "Saddlebags" chooses to speak in a sneering way of the—

"beautifully prepared trial packages sent to him free of charge," which only add to his bewilderment; for, unless he has his advertisement in hand, he will have no means of knowing the least thing on earth about the splendid virtue of this 'grand addition to his armamentarium,' for a very large percentage of it can be found in no materia medica or pharmacopœia upon the face of the earth. He is soon thoroughly convinced of the faults of his education, and 'goes back' on his dear old faculty that failed to teach him the virtue of such a world of valuable things, that he more than half believes he has been duped and swindled all his professional lifetime by the failure of those ignorant old antediluvians to impart half the knowledge that he is now enabled to gather from half a page of a fashionable medical journal."

That is pretty nearly our view of the case, although we would not go so far as "Saddlebags" in disrespectful allusions to the faculties of the medical schools.

Taking the example that "Saddlebags" mentions—guarana—where else but in medical journals *can* he find any allusion to it?

The United States Pharmacopœia does not mention it; neither does the last edition of Stillé's Therapeutics; Biddle, in his eighth edition (1878), devotes nine lines to it, and less than four of these attempt to sum up its therapeutical value; H. C. Wood, Jr., in the edition of 1874 of his work on Therapeutics, Materia Medica, etc., does not mention it, but in the last edition of the United States Dispensatory (1877), he devotes a page in Part III., to its history and general properties, where, however, he says of its pharmaceutical preparations:—

"A fluid extract may be made in accordance with the usual officinal formula; dilute alcohol being employed as the first menstruum, and then glycerin and water. For formula for *elixir*, see *Am. Jour. of Pharm.*, xlvii., 300."

Those who have a file of NEW REMEDIES will find references to guarana as follows:

VOL. II., p. 507.—Guarana in Sick-headache and Excitement of Epilepsy; p. 535.—A description of the drug and its principal uses.

VOL. III., p. 8.—The Action of Guaranine; p. 217.—Guarana in Lumbago.

VOL. IV., p. 240.-243.—A pretty complete description of the history, properties, therapeutic uses, and pharmaceutical preparations of guarana.

Vol. V., p. 339.—The Disagreeable Effects sometimes caused by Guarana.

VOL. VI., p. 271.—On the Tannic Acid of Guarana.

There are other medical and pharmaceutical journals, more or less "fashionable," which contain similar articles, and it is to such sources that manufacturers and bewildered young doctors go for the kind of information which more conservative authorities do not furnish.

Let our complaining friends take some pains to see that their delegates to the next Convention in 1880 for revision of the Pharmacopœia are men who recognize the need for a standard which shall regulate the manufacture of the things which are *in use*, and not the things which *were used* twenty years or more ago, and we shall have less occasion to find fault with variable, uncertain, and oftentimes inert preparations than we now experience. Then nobody will be obliged to complain that only one out of every ten officinal preparations in his stock is ever demanded; and physicians will not be obliged to specify *whose* elixirs, fluid extracts, or syrups they want, because the national standard ignores all these fanciful notions as utterly unworthy of such an antiquated and dignified authority. Manufacturers will not be compelled to issue private dose-books, and young doctors *may* find a "fashionable" medical journal quite superfluous as a source of necessary information—perhaps.

Correction.—In the paper published by Prof. Diehl in our May number, the following correctio s should be made: page 134, 1st col., line 7, read: *quantity* instead of quality.—In the table on p. 135, instead of the figures 793; 7; and 906, read: 893; 8; 1005.5.

MATERIA MEDICA, PHARMACY, AND THERAPEUTICS.

The Upas Tree.

Antiaris toxicaria, Leschenault, is a tree, often attaining a height of over 100 feet, belonging to the nat. fam. Ulmaceæ, tribe Artocarpeæ, and found native in the islands of the Indian Archipelago. The stamens and pistils are in separate flowers, on the same tree. The male flowers are numerous and inclosed within a hairy involucre formed of several fleshy divisions rolled inwards. The calyx is in three or four pieces and incloses an equal number of stalkless anthers. The female flower has an adherent calyx of several leaves and is terminated by a long two-parted style. It contains a single suspended ovule and becomes converted, when ripe, into a succulent, drupe-like fruit. The female flowers are solitary, placed in the axils of the leaves, side by side with the heads of the male flowers.

Antiaris toxicaria Leschenault.
Flowering branch; portion of male inflorescence; female flower in longitudinal section.

The Upas-tree, when pierced, exudes a milky juice which contains an acrid virulent poison,

called antiarin.* Most exaggerated statements respecting this plant were circulated by a Dutch surgeon about the close of the last century. The tree was described as "growing in a desert tract with no other plant near it for the distance of ten or twelve miles. Criminals condemned to die were offered the chance of life if they would go to the Upas-tree and collect some of the poison. They were furnished with proper directions, and armed with due precaution, but not two out of every twenty ever returned."

The Dutch surgeon Foersch† states that he had derived his information from some of those who had been lucky enough to escape, albeit the ground around was strewn with the bones of their predecessors; and such was the virulence of the poison that there are no fish in the waters, nor has any rat, mouse, or any other vermin been seen there; and when any birds fly so near this tree that the effluvia reach them, they fall a sacrifice to the effects of this poison. Out of a population of 1,600 persons, who were compelled on account of civil dissensions to reside within twelve or fourteen miles of the tree, not more than three hundred remained in less than two months. Foersch states that he conversed with some of the survivors, and proceeds to give an account of some experiments that he witnessed with the gum of this tree, these experiments consisting principally in the execution of several women, by direction of the emperor. Now, as specimens of this tree are cultivated in botanic gardens, the tree cannot have such virulent properties as it was stated to have; moreover, it is now known to grow in woods with other trees, and birds and lizards have been observed on its branches. It occasionally grows in certain low valleys, in Java, rendered unwholesome by an escape of carbonic acid gas from crevices in the ground, and which is given off in such abundance as to be fatal to animals that approach too closely. These pestiferous valleys are connected with the numerous volcanoes of the island. The craters of some of these emit, according to Reinwardt, sulphurous vapors in such abundance as to cause the death of a great number of tigers, birds, and insects; while the rivers and lakes are in some cases so charged with sulphuric acid that no fish can live in them. So that doubtless the upas-tree has had to bear the opprobium really due to the volcanoes and their products; not that the Upas is by any means innocent, for severe effects have been felt by those who have climbed the tree for the purpose of bringing down the branches and flowers. The inner bark of the young trees, which is fabricated into a coarse garment, excites the most horrible itching. It clings to the skin if exposed to the wet before being properly prepared. The dried juice, mixed with other ingredients, forms a most venomous poison, in which the natives dip their arrows. The name of the poison among the natives is either *upas* alone, or *pohon-upas*. The former is the generic name for "poison," but is often used specifically of this special one. *Upas antiar*, or more correctly *upas anchâr*, means "the poison of the anchâr tree."*

* Discovered by Pelletier and Caventou, *Ann. Ch. et Phys.* (2), xxvi. 57. Studied by Mulder, *Journ. pract. Chem.*, xv., 422, and De Vrij and E. Ludwig, *ibid.*, ciii., 253. See also Husemann's *Pflanzenstoffe*, p. 992.

† A Frenchman in the service of the Dutch E. India Co. His statements were quoted by Dr. Darwin in his "*Botanic Garden*," and were thence disseminated through the literature of Europe.

Solution of Curare for Hypodermic Use.

THIS substance having recently been recommended as a remedy for hydrophobia, *The Doctor* gives the following directions for the preparation of a solution for hypodermic use—this being the only method in which it can be employed. "To prepare so deadly and virulent a drug as curare, one should always have recourse to the same parcel, of which the strength has been proved. Curarine or one of its salts might be used, but, independently of the grave risks incurred in preparing them, we are as yet without trustworthy data upon which to frame a formula.

The keeping powers of a solution will depend in great measure on the menstruum. Water produces a solution giving the minimum of pain when injected, and it keeps well. The following formula is proposed by Mr. Moss as best meeting the requirements of the case:—

Curare	gr. i.
Water	℥ xij.

Dissolve; let the solution stand forty-eight hours and filter.

Using this solution, two-thirds, a half, third, or quarter of a grain may be given in a whole number of minims. Of the other strengths likely to suggest themselves, viz., one in ten and one in fifteen, the first would only allow of a tenth and a half grain; and the second, of a fifteenth, a third, and two-thirds of a grain being given in the same way. The accounts of the use of curare seem to indicate that the dose is from a quarter to half a grain.

Caution.—Curare requires to be handled with the utmost care. It should not be allowed to come into contact with a fresh cut or scratch. Two good rules would be—never to powder in the dry condition, and never to touch it with the naked fingers.

Thymol.

INCREASED demand has raised the Ajowan seeds or fruit which have formed part of the source for its manufacture.

* On Antiaris toxicaria, and the upas poison see also: *Crawford, History of the Indian Archipelago*, I., 467, etc., Dr. Horsfield, in *Verhand. van het Bat. Genootschap*, vol. vii. *O'Shaughnessy, Bengal Dispensatory*, p. 579, *Balfour, Timber Trees, etc., of India*, p. 35; 260, *Miquel, Flora Indiæ Batav.*, ii., 292.

EXPLOSIVE BODIES AND MIXTURES.*

BY CHARLES RICE.

A NUMBER of serious accidents which have lately occurred in chemical and pharmaceutical establishments, as well as an interesting discussion on this subject, at a late meeting of the Literary and Scientific Society of the German Apothecaries of New York, have convinced me that it would be doing good service to the profession, particularly to the younger members thereof, to gather together as complete an account of dangerously-explosive bodies and mixtures as the literature of the past, my own experience, and that of my friends might furnish. In doing this, I do not pretend to have reached completeness; indeed, quite a number of explosive substances have intentionally been left out, as some of these are quite difficult of preparation, and therefore not likely to be under the hands of any but accomplished chemists, while others are of doubtful or unknown composition, or only rarely met with.

I shall first give a list of chemical bodies, simple and compound, which are explosive under certain conditions, and afterwards give a selection of explosive mixtures, such as they sometimes are ordered in prescriptions. It will, however, be found advisable to place at the head of the list such substances as are spontaneously inflammable, although not directly explosive.

I.—SPONTANEOUSLY INFLAMMABLE BODIES.

Solid: Phosphorus, P_4.
Phosphorus cyanide, $P(CN)_3$.
Potassium nitride, K_3N.
Liquid: Phosphorus tetrahydride, P_2H_4.
Compounds of methyl and ethyl, with aluminium, zinc, boron, arsenic, antimony, etc., as $Zn(CH_3)_2$ zinc-methyl; $B(C_2H_5)_3$ bor-ethyl; $Sb(C_2H_5)_3$ stibethyl; $As_2(CH_3)_4$ arsendi-methyl or kakodyl, etc.
Phosphorus subsulphide, P_4S.
Gaseous: Silicic hydride, SiH_4.
Boron methide (bor-methyl), $B(CH_3)_3$.

II.—SPONTANEOUSLY EXPLOSIVE BODIES.

Liquid: Perchloric acid, $HClO_4$
Nitrogen chloride, NCl_3.
Cyanic acid, CHNO (sometimes).

III.—BODIES WHICH EXPLODE ON HEATING.

Solid: Ammonium nitrate, when suddenly and strongly heated.†
Platinous oxalate, PtC_2H_4.
Sodio-platinous oxalate.
Ammonio-mercuric oxalate (decomposes with a hissing noise).
Mercurous oxalate, $Hg_2C_2O_4$.
Dimercurammonic hydrate, violently.
Dimercurammonic oxide, violently.
Trimercur-diamine (mercury nitride), violently.
Ammonium-trichromate, above 120° C.
Urea nitrate, CH_4N_2O, HNO_3, detonates when suddenly heated.
Tetrethylammonium dichromate, $(C_8H_{20}N)_2O$, $2CrO_3$.
Silico-hydric sulphide, $Si_4H_2O_5$.
Most organic *nitro-substitution* compounds, containing the group NO_2, when suddenly heated or heated under pressure.
Trinitraniline.
Phenylamines, containing nitro-group or bromine.
Picric acid, $C_6H_3(NO_2)_3O$, explodes when quickly heated in retort.
Picrates explode when strongly heated, especially in closed vessels.—The force of picrates is about four times that of gunpowder. Forty pounds exploded in Berlin, a number of years ago, destroying the whole factory. At Paris, the laboratory of Fontaine was destroyed by the explosion of fifty-six pounds.
Hypophosphites. In Trommsdorff's laboratory, a solution, containing about two pounds of a hypophosphite, while being evaporated to dryness on a sand-bath, exploded, killing the boy who stirred it. Dr. L. C. Marquart found that even the heat of a *water-bath* was too high, having also experienced an explosion in his factory. The same happened to Mr. C. Frederking, of Riga, in 1859. The fact that accidents with hypophosphites are not more numerous is by some ascribed to the general impurity of the salt, as the manufacturer but rarely risks to carry the process to an end. The causes of the explosion, according to Mr. Gerauld Janssen, are: 1, the action of heat and oxygen of air on phosphuretted hydrogen (PH_3); 2, the production of biphosphuretted hydrogen (P_2H); and 3, the formation of a peculiar and very explosive compound, which he calls triphosphuretted bihydride (P_3H_2), crystallizing in hexagonal prisms. On heating this, it decomposes into phosphorus and phosphorus tetrahydride (P_2H_4) which takes fire spontaneously. Alcohol prevents these explosions.
Argentic chlorite, $AgClO_2$, explodes at 105° C.
The silver salts of fumaric, mellitic, maleic, chelidonic, oxygummic, oxybenzoic, trichloracetic (*violently*, even when heated only on paper), and chloracetic acids.
Argentic oxalate, $Ag_2C_2O_4$, detonates when strongly heated.
Argentic citrate, $Ag_3C_6H_5O_7$, deflagrates when strongly heated.
Ammonium periodate, NH_4IO_4, $2H_2O$.

*I am indebted to Prof. Chas. Froebel, of the College of Pharmacy, to Messrs. Paul Balluff, P. F. Lehlbach, G. Pfingsten, Dr. Mettenheimer, of New York, and Dr. Weber, of San Francisco, for contributions to this article.
†According to Noirbin and Ohlson, of Stockholm.

Ammonium iodate, NH_4IO_3, decomposes at 150°C, with a hissing noise.
Plumbo-triethyl cyanide.
Graphitic acid, $C_{22}H_4O_5$.
Chrysammic acid, $C_{14}H_4N_4O_{12}$, and its salts detonate violently on dry distillation.
Benzoic and cuminic peroxides.
Tellur-methyl (and ethyl) nitrates.
Oxypicric acid and oxypicrates.
Furfurine perchlorate, $C_{17}H_{12}N_2O_2$, $HClO_4$.
Acetamide nitrate, C_2H_5NO, HNO_3.
Mercurethyl nitrate.
Isopurpurates and fulminurates.
Chlorates explode when heated in presence of combustible bodies.

Solid or liquid: Nitroform or trinitro-methane, $CH(NO_2)_3$.

Liquid: Acetic dioxide (peroxide), $(C_2H_3O)_2\ O_2$.
Butyric peroxide, $(C_4H_7O)_2\ O_2$.
Valeric peroxide, $(C_5H_9O)_2\ O_2$.
Ethyl nitrate, $C_2H_5NO_3$: the vapor heated above the boiling point, 85° C., detonates violently when ignited.
Methyl nitrate, CH_3NO_3: its vapor explodes with excessive violence when heated to about 150° C. A whole factory near Rübeland, in the Hartz Mountains (Germany) was blown to atoms on June 25th, 1872, at which occasion the promising young English chemist, Ern. Theophron Chapman, and a number of workmen lost their lives. Among other accidents which happened with this substance, that occurring at St. Denis deserves mention, which also cost several lives, and where several thousand pounds of this substance had been allowed to accumulate.
Permanganic acid, $H_2Mn_2O_8$.

Liquid or gaseous: Chlorine trioxide, Cl_2O_3.
Chlorine tetroxide, Cl_2O_4, violently.

Gaseous: Chlorine monoxide, Cl_2O.

III.—BODIES WHICH EXPLODE ON PERCUSSION.

Mercuric oxalate, $Hg\ C_2O_4$: detonates *violently* on merely *rubbing*.
Aceto-hypo-iodous oxide, $C_2H_3IO_2$; detonates also spontaneously.
Xyloidin (explosive starch) $C_6H_9(NO_2)O_5$.
Pyroxylin (gun-cotton), $C_{18}H_{21}(NO_2)_9O_{15}$, or $C_{18}H_{22}(NO_2)_8O_{13}$, or $C_{18}H_{23}(NO_2)_7O_{15}$.
Potassium carboxide $C_2K_2O_2$.
Phenylamine, containing nitro-group, iodine, bromine, etc.
Plumbic oxypicrate (basic), explodes on mere pressure.
Ammonium aurate (fulminating gold).
Nitrogen sulphide, NS.
Fulminates. These are particularly dangerous. Even the removal of a stopper from bottles containing fulminating mercury has led to fatal accidents; for instance that of Mr. Perry, of La Crosse, Wisconsin, on Oct. 21st, 1864. A serious accident occurred at Small Heath, Birmingham, on May 14th, 1876, by a person stepping on a piece of earthenware, which had formerly been part of an apparatus for making fulminating mercury.
Nitrogen iodide (various composition); this is generated by bringing together ammonia and iodine, or by adding iodide of ammonium to chloride of lime, previously neutralized with acetic acid. Even the vapor of ammonia on coming in contact with iodine may produce it. This may account for the accident which happened to Mr. F. J. Trauten, on July 27th, 1870, who, having filtered a strong solution of iodine in iodide of potassium, left the filter to dry in the funnel till morning, when on taking it out, the paper and funnel were shattered to atoms, covering the walls and his body with stains of iodine.
Many organic nitro-substitution compounds.

Liquid: Ethyl perchlorate, $(C_2H_5)\ Cl\ O_4$.
Nitroglycerin, $C_3H_5\ (NO_3)_3$.
Nitrogen bromide, explodes by percussion and on contact.
Nitrogen chloride, produced by passing chlorine into a saturated solution of ammonium chloride, explodes by percussion, by contact, and spontaneously.
All azo-phenylamine derivatives explode on rubbing, heating, percussion, etc.

IV.—EXPLOSIONS DURING CHEMICAL MANIPULATIONS.

Among the many accidents which have occurred under this head, I will mention the following:

Hydrocyanic Acid.—During the preparation of this acid from mercuric cyanide and hydrochloric acid, the process was on one occasion stopped before all the HCy had come over. The remainder was added to the next operation, when minute pearly crystals made their appearance, rendering the liquid opalescent. Soon there occurred a tremendous explosion, which did much damage. The substance formed was suspected to be a fulminate [?].

Oil of Bitter Almonds.—A serious accident occurred in this city a few years ago by the explosion of a flask in which oil of bitter almonds was being distilled, and to which silver nitrate had been added, to remove hydrocyanic acid. The explosion was, no doubt, due to the sudden reduction of the silver and the liberation of oxygen and nitrous acid.

Potassium cyanide.—A chemist had prepared this by Liebig's process; but as the lower layer of it was bluish-gray, and showed signs of containing metallic iron, he attempted to purify a small portion by again fusing. A violent explosion shattered the crucible to atoms.

Potassium ferricyanide.—During its prepara-

tion by passing chlorine into pot. ferrocyanide solution, on one occasion the tub containing the latter exploded with tremendous violence. It was supposed that some ammonium chloride had been present, and that chloride of nitrogen had been formed.

Preparation of Oxygen.—The admixture of organic or otherwise combustible substances to potassium chlorate has been the cause of a great number of very severe accidents, and of the loss of many lives. The utmost care should be exercised to insure the absence of any *organic* or *combustible* substance; even the closure of the tubulure of a retort by a *cork* has led to accidents. On several occasions black sulphuret of antimony has been used by mistake for manganese dioxide, for the preparation of oxygen in conjunction with potassium chlorate, a mistake which has caused several deaths.

Preparation of Hydrogen.—Equally numerous are the accidents which have occurred from careless manipulation during the preparation of hydrogen. Hydrogen, like all other combustible gases, when mixed with air or oxygen in about the proportion to form a definite final end-product, which in the case of hydrogen is water, forms an explosive mixture which only needs the approach of a light to set it off. In former times the explosion of bags, gasholders, and cylinders of hydrogen was a good deal more frequent than now, since superior apparatus has done away with most of the danger in handling calcium-lights, the oxy-hydrogen blowpipe, etc. Nevertheless accidents still often occur; the premature ignition of a jet of hydrogen or arseniuretted, antimoniuretted, etc., hydrogen (from Marsh's apparatus) in laboratories is one of the most common occurrences. A most serious accident of this kind lately befell the accomplished assistant of one of our best chemists in this city, crippling him for life and almost killing him.

Potassium nitrate and in fact all *nitrates*, should not be heated to high temperatures with organic substances. Whenever this is to be done, the mixture should, as a rule, either be deflagrated in small portions, or only a small quantity of the organic substance should be added at a time.

If potassium nitrate (100 parts) be mixed with sodium acetate (50–100 parts), each being previously fused, and then both melted together, the mixture will explode with great violence between 300 and 350° C. The same thing happens with sodium nitrate and potassium acetate.

Purple of Cassius.—A small quantity of this had been freshly made in Trommsdorff's laboratory and placed near the parlor stove to dry, where it probably absorbed some ammonia. After bottling the dry powder, and while inserting the stopper, it exploded. Some fulminating gold had probably been formed.

Phosphorus, Phosphoric Acid, etc.—During the preparation of phosphoric acid from phosphorus, by means of nitric acid, or of nitric acid combined with iodine or bromine (Markoe's process), explosions are liable to take place if the reaction is allowed to become too violent. Under all circumstances, the greatest care should be exercised, not only in handling and storing phosphorus, but especially in treating it with chemicals.

Iodine.—Prof. Schneider, of Vienna, in 1872 attempted to prepare hypo-iodites, iodites, and hypo-iodates, by treating mercury oxy-iodide with a solution of iodine in potassium iodide. After a few weeks the mixture was covered with a crystalline crust, which, on being broken with a glass rod, violently exploded. Cause unknown. Iodine and white precipitate (hydrarg. ammonio-chlor.), if brought together in a solid state and alcohol be poured over them, produce a violent explosion (NEW REM., 1876, 40).

Colored Fires.—The preparation of these is attended with much danger, as they generally contain potassium chlorate or nitrate, and various easily combustible materials. When making them, never powder any of the ingredients together, but each one singly; mix them without friction in small quantities, and do not keep them on hand in bulk. A number of instances are on record, when a stock of colored fires exploded spontaneously without any apparent cause. I am informed that the following formula for "Green Fire" has several times furnished a spontaneously explosive product: Barium nitrate 80, sulphur 6, antimon. sulph. aur. 2, potass. chlorate 40, charcoal 1 part. Preparations of "Red Fire," containing charcoal and antimony, have also been known to explode spontaneously.—Powdered iron is used in some formulæ. I would warn *never* to use *reduced iron*, as this may cause an explosion.

Ferric Nitrate has sometimes exploded on being evaporated to dryness: probably owing to some ammonium nitrate present.

Sodium or Potassium, when brought in contact with water, decomposes it; in presence of the latter the hydrogen takes fire; in presence of the former, only when the water is warm, or the quantity of sodium is large. But in this case a portion of the sodium is liable to be thrown about by the sudden explosion of hydrogen, and do serious damage.

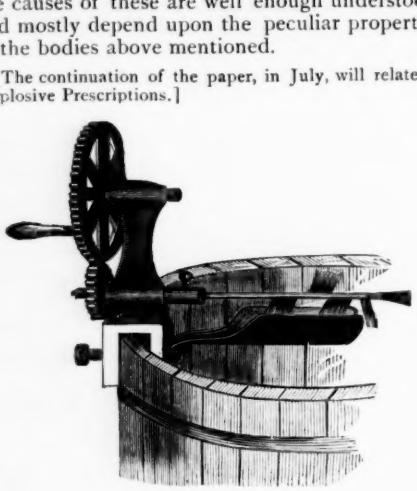
Zinc-dust, that is, commercial powdered zinc, which is used as a reducing agent in many important technical and chemical operations, may be the cause of explosions, when it is exposed to dampness, because it readily decomposes water, and may produce an explosive gaseous mixture.

Inflammable liquids have often been the cause of explosions. It will be sufficient to allude to them here.

It cannot be my province to include in this account such accidents as have occurred by the

explosion of flour and starch manufactories, yeast-barrels, gun-powder, obstructed stills, etc.; the causes of these are well enough understood, and mostly depend upon the peculiar properties of the bodies above mentioned.

[The continuation of the paper, in July, will relate to Explosive Prescriptions.]



A Bottle-Washer.

We are indebted for our illustration of this contrivance to the *Weinlaube*, an interesting Austrian periodical. But little description is needed to make its application understood. An upright support, attached by clamp screws to the edge of a tub for holding water and bottles, has a chock into which a suitable brush is fastened. The system of cogwheels enables the brush to be rotated rapidly, so that its bristles may be brought in contact with the whole of the interior of the bottle. A bottle being filled with water, is slid over the brush and allowed to rest on the support shown in the engraving, and while part of its contents is being discharged, the revolving brush causes the remainder to thoroughly wash the interior of the bottle, and as it flows out, to carry with it whatever dirt, wine-lees, or other deposit may have been present.

Potassium Xanthate as an Antiseptic.

B. Zöller strongly recommends the use of potassium xanthate for antiseptic purposes. Urine, grape-juice, blood, and other putrescible substances to which small quantities of this salt have been added have been found to remain undecomposed for months.

Potassium xanthate is prepared by mixing carbon disulphide with an alcoholic solution of potassa. The resulting salt is purified by recrystallization from water. It forms colorless crystals, and its solution colors the skin yellow. Its composition is $KC_6S_2H_5O$.

Vaseline.

Inferior sorts of this substance are met with in the market; they appear to be mixed with a fatty-oil, as they may be partially saponified by means of alkalies.

SUPPOSITORIES.

BY R. H. DIMOCK.

I send you the details of a convenient and rapid process which I have followed in the manufacture of suppositories with successful results, thinking it may interest some of the readers of New Remedies.

I use Maw's suppository-moulds, holding them together with a strong rubber band, such as is used for papers, etc. I keep the mould lying in a box with powdered arrow-root, and by its side a piece of heavy cloth, tacked neatly on a block of wood, to wipe the inside edges free from the powder without disturbing that in the moulds; also, a shallow tin dish for ice and moulds. If I have extracts like belladonna or opium, I soften them into a thin paste with a little water, in a mortar large enough to mix the entire mass, warming the pestle in the flame of a Bunsen's burner; morphia, tannin, etc., I dissolve in a little glycerin; iodoform I dissolve in a little alcohol, which is entirely dissipated by the heat afterwards. Then I have cacao butter, previously grated on a coarse grater, such as housewives grate cocoanut on, holding cacao butter with a cloth, so that the warmth of the hand does not sensibly affect it. I weigh the required amount (the moulds being stamped with the weight); then I set moulds in powdered ice and leave to cool, while I thoroughly incorporate the ingredients in the mortar. In cold weather I warm the pestle. When mixed, I put the mass into a porcelain capsule with handle, and *carefully* heat, stirring with spatula until it will just run, as it is easier to heat just enough than to cool when entirely liquefied, and I thereby also prevent the ingredients settling into the end of the suppositories; then I fill the moulds carefully, and the mass not being heated very much, it cools quickly; finally, I take out the moulds, wipe them, open, and with a gentle tap the suppositories fall out perfect.

Waterbury, Ct.

A Tasteless Antiperiodic.

Samuel Ashhurst, M.D., of Philadelphia (*Amer. Jour. of Med. Sci.*), remarking the insolubility of cinchonia (the base) in ordinary solutions, while in the stomach its solution is speedily accomplished by the gastric juice, has taken advantage of this fact to give it in this form, rather than combined as a sulphate which, owing to its solubility, makes a far more intense impression of bitterness upon the nerves of taste. He says, "There is, however, an inherent difficulty in administering the powder pure, and this is its tendency, like many other insoluble powders, to be retained in the mouth by adhering to the teeth. These remains of the dose, being gradually dissolved by the continual action of the salivary fluid, the bitterness common to all the cinchona alkaloids is fully developed. This difficulty can in great measure be overcome by

mixing the cinchona with various substances, which, while they increase the bulk of the powder, fully compensate for this disadvantage by facilitating its complete passage through the mouth. Every physician will of course consult his own taste and pharmaceutical skill in the choice of a diluent. I have found sugar of milk to answer the purpose very well. As a further guard against the solution of the cinchonia, a small quantity of bicarbonate of sodium may be added, with the object of neutralizing any free acid that may be present in the saliva. A powder containing one grain of cinchonia, four grains of sugar of milk, and one-tenth of a grain of bicarbonate of sodium, possesses only the slightly sweet taste of the sugar of milk, and is quite readily miscible with water or milk, or, if preferred, can be easily swallowed dry. With the object of promoting the solution of the cinchonia in the stomach, I at one time thought it well to administer an acid drink some little period after the ingestion of the remedy, but I am now convinced that this precaution is very rarely necessary, and that the gastric juice is quite able, ordinarily, to perform this task unaided.

As the base cinchonia, in powder, contains no water of crystallization, I am in the habit of prescribing the same dose of it as of sulphate of quinia. Whenever, from any cause, it is desirable to administer an antiperiodic or vegetable tonic in powder, I have no hesitation in saying that the neutral alkaloid cinchonia will be found *efficient* to a degree but little if at all less than quinia; that it can be so administered as to be *tasteless*, and that it is very *cheap*, less than one-sixth the cost of the salts of quinia.

Repercolation.*

At the request of the Committee on the Revision of the United States Pharmacopœia of the American Pharm. Association, Dr. Edward R. Squibb has published a paper showing the application of the process of repercolation, originally devised by him, and since then successfully applied by himself and others, chiefly for the purpose of continuous manufacture, to the scale of the pharmacopœia. Want of space unfortunately compels us to omit those portions of the paper which contain the special results obtained during the studies of the fluid extracts of cinchona and cimicifuga, and to confine ourselves to the transcription of the working process proposed for adoption into the next U. S. Pharmacopœia, and to a description of some new apparatus devised for purposes of percolation.†

The drug which was selected by Dr. Squibb for the purpose of constructing a model process for a fluid extract was cinchona bark, and the subjoined formula embraces the experience acquired in making the series it represents, and which may be found in full in the original:

EXTRACTUM CINCHONÆ FLUIDUM.

(Fluid Extract of Cinchona.)

℞ Yellow Cinchona, in powder No. 50, . . 32 parts.

For a sufficient quantity of menstruum:

Stronger Alcohol, s.g. .819 at 15.6° C.= 60° F.
or s. g. .811 at 25° C.= 77° F., 2 parts
Glycerin, s. g. 1.250 at 15.6° C.=60° F...
or s. g. 1.244 at 25° C.= 77° F., 1 part
Water, 2 parts

Weigh the stronger alcohol, glycerin, and water in succession, in any convenient quantity at a time, into a tared bottle, and mix them thoroughly for a menstruum.

Moisten 8 parts of the cinchona with 8 parts of the menstruum, by thoroughly mixing them, and allow the mixture to stand 8 hours in a closely covered vessel. Then pass the moist powder through a No. 8 sieve, and pack it firmly in a percolator. Pour menstruum on top until the mass is filled with liquid and a stratum remains on top unabsorbed; cover the percolator closely and macerate for 48 hours. Then arrange the percolator for an automatic supply of menstruum, and start the percolation at such a rate as to give 1 part of percolate in about 4 hours. Reserve the first 6 parts of percolate and continue the percolation until the cinchona is exhausted, separating the percolate received after the reserved portion into fractions of about 8 parts each.

Moisten a second portion of 8 parts of the cinchona with 8 parts of the weak percolate—the portion that was obtained next after the reserved percolate—and allow the moist powder to stand for 8 hours in a vessel closely covered. Then pack it moderately in a percolator, and supply the percolator automatically with the remaining fractions of the weak percolate in the order in which they were received, and finally with fresh menstruum until the cinchona is exhausted. Percolate in the same manner and at the same rate as with the first portion of cinchona, and reserving 8 parts of the first percolate, separate the weaker percolate into fractions of about 8 parts each.

Percolate the third and fourth portions of 8 parts each of the cinchona in the same way as the second portion.

Finally mix the four reserved percolates together to make 30 parts of finished fluid extract; and having corked, labelled, and numbered the bottles containing the fractions of weak percolate, set them away until the process for cinchona is to be resumed.

When this fluid extract is to be again made, repeat the process as with the second portion,

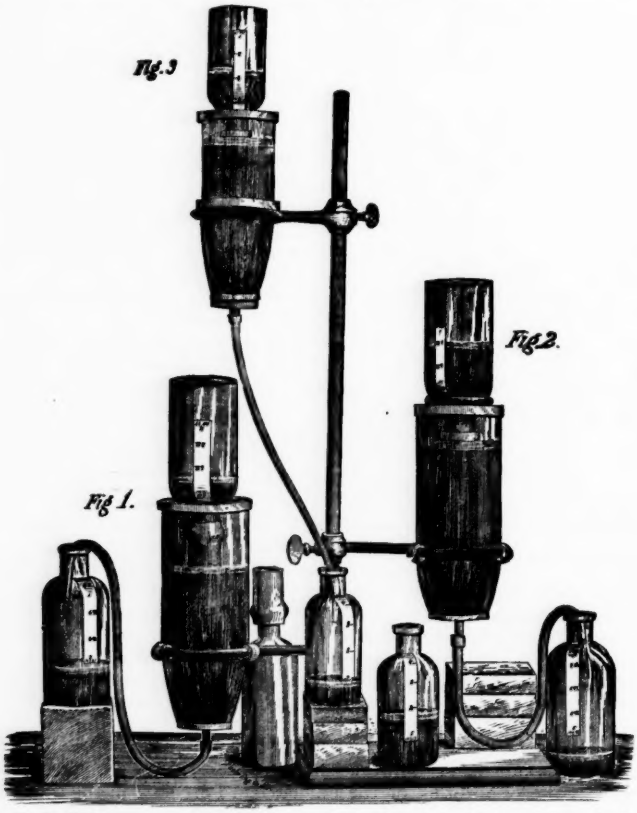
* Extracts from an essay by Dr. Edward R. Squibb, entitled: *Fluid Extracts by Repercolation*, published in pamphlet-form, and also in *Amer. Journ. of Pharm.*, May, 1878.

Any one can obtain a copy of the entire and complete paper, free of cost and free of postage, who will send a request for it, with the name and address plainly written, to the author.

and reserve 8 parts of the first percolate as finished fluid extract from each 8 parts of cinchona from that time forward so long as the fractions of weak percolate are carried forward with which to commence each operation.

The apparatus which in the hands of Dr. Squibb has rendered the best results is the so-called siphon-percolator, described in the *Proceedings of the American Pharmaceutical Association* for 1872, page 182, etc., and of which the present paper of the author gives a detailed description. Dr. Squibb has applied this form of apparatus to all scales of manufacture from 4 ounces to 400 pounds, and gives it the preference over any other form of apparatus. Dr. Squibb has, however, lately devised a new form of percolator, in which the siphon tube of the other apparatus is replaced by a narrow-bore rubber tube attached to the bottom of the percolator, and which may be raised or lowered at option, so as to cause a speedier or slower discharge of percolate. The new apparatus is thus described by the author:

"The cut presents three separate groups of apparatus in positions to illustrate three stages of repercolation, and it is to be understood that all intermediate positions are often useful and necessary even in the same percolation. The support is a common apparatus stand, the rings of which are reduced to the proper size by short sections of rubber-tubing cut open and placed on the wire of the ring when needed; or, a section of larger tubing stretched over the percolator as in Fig. 3. The percolators are common lamp chimneys costing about five cents each, and are of the size and form known technically as 'A' and 'B' 'Sun Chimneys.' These are of very good form, though not the best, for percolators, and should be selected with as small an opening for the stopper as possible, and with the smoothest, thickest, and most regular edge, since it is practically impossible to stop some of their irregular edges tightly. The smaller size, Fig. 3, holds conveniently 4 ounces of most powders, and the larger holds 8 ounces—to the points shown in the cut. A good soft cork, bored in the centre for a short piece of glass tube of not more than one-eighth of an inch or 3 mm. bore serves to close the small end of the chimney. A rubber cork is best, and such may be made of concentric sections of rubber tubing of different



Dr. Squibb's Apparatus for Repercolation. (Scale: One-sixth of the actual linear size.)

sizes; or, the largest cork at hand may be increased to the proper size by stretching around it short sections of rubber tubing. The short piece of glass tubing should not go quite through the cork on the inside, and should project about an inch = 25 mm. outside. A piece of rubber tubing of not over ⅛th inch = 3 mm. bore, and about 13 inches = .325 m. long has one end slipped on to the glass tube. If this tubing be much larger than the dimensions given, it fails to be filled with the liquid, and then, when the percolator is in the position of Fig. 3, it fails to perform the office of a Sprengel pump in exhausting the liquid and air bubbles from the lower part of the percolator. Two disks of blanket or thick flannel, and one of filtering paper cut a little larger than the inner surface of the cork, and laid upon it, complete the arrangement of the percolator. The powder, moistened with great care and uniformity, is packed loosely, firmly, or very firmly, according to its nature or condition, with the square end of a stick, say .8 inch = .02 m. diameter. As a rule, the largest practicable proportion of liquid should be used in moistening the powder, because then the powder occupies the smallest space in the percolator,—requires the loosest packing, and is saturated for the maceration by the smallest additional quantity of liquid, and therefore gives the most concentrated first percolate for the reserve, and secures the most rapid exhaustion by the smallest quantity of liquid. A disk of filtering paper is placed on the surface of the powder, of such size that the edge is reflected up against the glass. A disk of board, card-board, or better of thick sheet rubber with a central hole 1.5 inches = .037 m. in diameter, is used for a cover. A stratum of liquid, maintained at a uniform thickness of .25 inch = .006 m. should cover the powder from first to last, so that it may not drain and contract, or admit air; and this is best maintained by an inverted bottle of the supply liquid, as shown in the cut. The length of the neck and mouth of such bottle may be conveniently elongated when needed, so as to regulate the depth of the stratum of liquid above the powder, by stretching over it a short section of rubber tubing in the manner shown in the first group of the cut, Fig. 1. When the percolator is charged and ready for maceration, the small rubber tube is turned up and fastened with a piece of thread or rubber band, so that the end is considerably above the level of the liquid in the percolator, and in so adjusting it care must be taken not to close the tube, because, as the liquid descends through the powder to fill up all the interstices, it is important that the interstitial air should have a free exit by the tube.

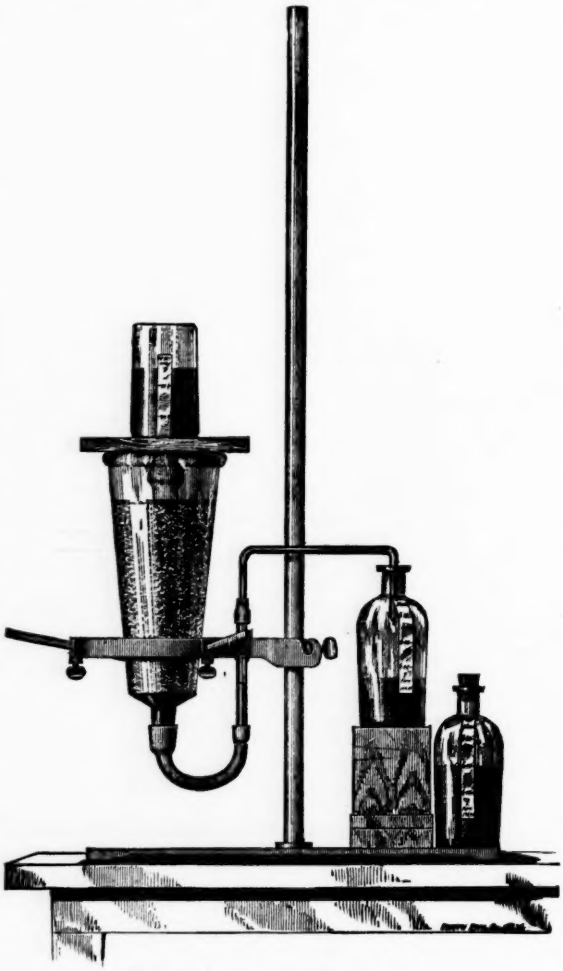
"The bottles for receiving the percolate are common round-shouldered prescription bottles, 4 oz. for the small percolator, 8 oz. for the larger. A strip of paper should be pasted lengthwise of the bottle, and at the lower end of this the tare should be marked. It should then be graduated to the quantities desired by weighing into it the proper quantity of water and marking at each level if more than one be desired. This graduation simply serves as a reminder to know when to try the bottle on the scale, for whether the finished fluid extract be adjusted weight for weight, or by an arbitrary weight in each case so as to get the relation of minim for grain, this must equally be done by weighing.

"It is convenient to have 6 to 10 of such bottles, and then as soon as 4 are filled from one percolation, another can be started, and thus relieve some of the bottles for use over again. The bottles should be numbered from 1 to 10 to keep the proper order of using them, and if more than one series is in use at the same time, the second should be designated by the first letters of the alphabet instead of by numbers. The maceration should never be less than 48 hours; and a longer time does not seem to be of any use unless the powder be coarse and of hard particles. When the percolation is to be started, the percolator is raised to the position of Fig. 3, and the end of the exit tube placed in the bottle marked for the reserved percolate, for 10 or 15 minutes, in order that the bubbles of air may be driven out and the tube be filled solid with liquid. As soon as this condition is attained, the percolator is lowered to the position of Fig. 1, and the receiving bottle is then to be adjusted higher or lower until a rate of dropping is established of not more than one drop per minute on this small scale—and one drop every two minutes makes a better rate for such quantities. Indeed, the rule for all percolations is, the slower the rate the more perfect the exhaustion, and with a smaller quantity of menstruum.

"This slow rate and the automatic supply by the inverted bottle admit the process to go on night and day, but if it be desired to go slower, that a mark may not be passed in the night, the bottle has only to be raised or the percolator lowered a little; and by a still greater change of levels the dropping may be stopped altogether. On rare occasions, when dropping at a uniform rate, it will stop altogether, or become very slow. This is in consequence of a bubble of air getting over the orifice of the glass tube inside, and acting as an obstruction. If the tube be moved from side to side, the air bubble will be started and pass down and the rate of dropping be resumed. If not thus dislodged, it will most certainly be by raising the percolator for a short time into the position of Fig. 3. With some powders and some degrees of moistening and packing, the proper rate of dropping will require the position of Fig. 2, and in some stages of many percolations this position will be required; while, if for want of skill and experience the packing be too hard, the position of Fig. 3 may be needed from the first. But the best percolations are those obtained by the position of Fig. 1, where the

whole mass is in the equilibrium of maceration, and the fluid all moves downward together at a very slow rate. As the more concentrated portions of percolate get through, the rate of dropping increases for any position, and occasionally, with loose packing, the position has to be altered to check it. But after the reserved portion has been received, and the quantity required to moisten the next powder, the rate of dropping may be doubled without much harm, and thus half the time be saved. The slow and uniform rate of dropping is the important point to be attained, and the various positions are simply means of accomplishing this. It is easy to obtain complete exhaustion. That is, a percolate almost colorless and tasteless, and having the same s. g. as the menstruum, and how far short of this to stop the process cannot be indicated. But upon this small scale the percolate from the first portion should weigh from 3 to 4 times the weight of the powder; and for the repercolations from 5 to 7 times the weight of the powder. And then with fair exhaustion each time the results must continually check each other and improve, until after 10 or 12 repercolations a nearly mathematical accuracy must be attained, and ever after be maintained, all the variation being in the quality of the drug used. The writer has many series of repercolations, on various scales of quantity, which were started five years ago and suspended from one season of the fresh drug to another, but never interrupted to begin anew, and such would go on indefinitely and with entire uniformity of result if the drugs could be obtained of a quality as uniform as is the process.

"Should this method by repercolation become officinal, or come into general use, the apparatus makers would soon supply a flat-bottomed glass percolator and cover of better form than the lamp chimneys, and of all sizes, at moderate prices. If so, no better form could be adopted than that shown in the following cut, if the bottom be flat or very nearly so, and the exit tube be of the proper size to receive a No. 5 vial cork. Then such a cork bored to receive a piece of glass tubing 1.6 inch=.04 m. long with about 3 mm. bore would adapt it to the small rubber tubing used with the lamp chimneys. Even with the glass percolators now in common use, a short section of small rubber tubing serves as a cork to go inside the outlet, and the short piece of glass tubing through that. Then the small rubber tubing is used exactly as with the lamp chimneys.



Dr. Squibb's Apparatus for Repercolation.
(Scale: One-sixth of the actual linear size.)

"The chief object of presenting this illustration is to show a convenient way of applying the principles involved in the siphon percolator to the glass percolator in common use, in order to try to tempt those who have such percolators to use the method in percolation and repercolation. The cut is so plain and so easily understood that it needs but little explanation. The percolator is shown in the position of having been stopped for the night, lest the receiving bottle should be filled beyond the proper mark. The siphon here is made in two parts, one end of the upper

part being telescoped within a larger piece of glass tubing, and the junction made tight by a short section of rubber tubing through which the smaller tube is free to slide. During maceration, or when the percolation is arrested, the upper part of the siphon is drawn up until the liquid will no longer flow over into the bottle, and the height at which this column of liquid ceases to flow over is a measure of the comparative density of the liquid within and without. As seen in the cut, the liquid will not flow over into the bottle, although the column is several inches short of the height of the liquid in the percolator. But as exhaustion progresses, and the liquid in this column becomes less dense, its counterbalancing height becomes greater, until finally, when the powder is exhausted and the liquid within and without are of the same density, the column rises to the level of the liquid within the percolator minus the friction and capillarity. When the percolation is to be started, the siphon is simply pushed down through the rubber until the liquid flows over, and then the rate is established by carefully raising or lowering the siphon. This sliding joint for varying the length of this column of liquid at will being understood, the other details are plain enough, whilst the charging and the general management are the same as in the smaller and larger percolators."

Diagnosis and Treatment of Carbolism.

A MUCH more positive symptom of poisoning by carbolic acid than the peculiar dark brown or greenish discoloration of the urine is the diminution of simple sulphates and the presence of so-called compound sulphates and non-poisonous sulpho-carbolates in the urine. Sonnenberg examines urine for sulphates by first acidulating it with acetic acid, adding chloride of barium, and determines the quantity of the salt by the amount deposited. In some severe cases, there may be no discoloration and no sulphates present.

Baumann's experiments show that sulphate of soda, given as an antidote, causes not only an increase of the sulphates excreted, but causes a disappearance of other symptoms.—*The Clinic* from *St. Petersburgh Med. Woch.*

Salicylic Acid in Pneumonia.

S. L. SILVERTHORN, M.D., of Charleston, Ill. (see *Chicago Med. Jour. and Ex.* of February), has used salicylic acid in doses of twenty grains every two hours, in a case of pneumonia, in which the signs of the first stage were present pretty generally over the entire right and lower part of the left lung. Ten hours later, the cough, pain, and dyspnœa were not much relieved, but expectoration was bloody and more free, tongue moist, perspiration free. Calomel, gr. v.; morphia sulph., gr. ¼; soda bicarbonate, gr. x. were then ordered, and the salicylic acid continued at three-hour intervals.

Forty-eight hours after the first visit, the acid having been given in lessened quantity, until 140 grains in all had been consumed, the patient was dressed and comfortable and later ate a good breakfast. Dr. Silverthorn asks if salicylic acid is not an abortive of pneumonia.

A CASE is reported by James I. Rooker, M.D., in the *American Practitioner* of February, of a female 67 years of age, in which the use of the acid in doses of two scruples every three hours, in combination with the borate of sodium and glycerin, reduced the temperature from 102.5° to 100° within twenty-four hours, and at the end of forty-eight hours, secured mobility of diseased joints and improvement of all symptoms. Stoppage of the remedy, and exhibition of iodide of potassium and colchicum were accompanied with a relapse, and a return to the salicylic acid again improved the condition of the patient, and led to removal of the disease in about ten days.

PROFESSOR DA COSTA says (*Med. Times* of March 2d) that, if salicylic acid acts at all in acute rheumatism, it acts promptly. If it or the salicylate of sodium does not cause a change for the better in two or three days, give it up and try something else. There is great disadvantage in the administration of large doses of salicylic acid, as they may bring on fatal depression. Less than a drachm of the acid in the first twenty-four hours he declares to be useless, and a drachm and a half ought to produce no unfavorable results. He prefers sodium salicylate to the uncombined acid, as it is better borne by the stomach and can be given in larger doses. In view of the depressing effects of the remedy, its use should be immediately stopped if the pulse becomes feeble and the patient delirious. Moreover, salicylic acid should never be given in cases of cerebral rheumatism.

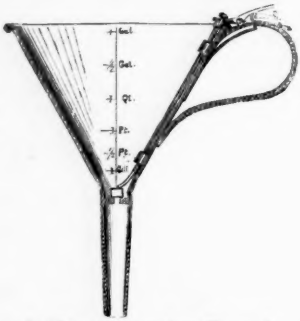
Toxic Action of Salicylate of Sodium.

FREDERICK H. DALY reports (*Br. Med. Jour.*) that to a woman having rheumatic inflammation of several joints, a temperature of 103.2°, and sweating profusely, he gave milk diet and twenty grains of salicylate of sodium every two hours. Next day she was free from pain, temperature normal, sweating very little, swelling nearly gone, somewhat incoherent. The interval between doses was increased to three hours. The next day she was delirious, and the remedy was for the time discontinued. A dose of twenty-five grains of chloral gave six hours' sleep, and next morning the patient was again rational. Ten grains of the remedy were then given three times daily, with a grain of quinia, and she quickly recovered.

Caustic Lime in Magnesia.

A SMALL percentage of lime in calcined magnesia is unavoidable, since lime is a constant

constituent of magnesium (sub-) carbonate. The presence of a larger quantity of lime may be recognized (aside from chemical tests) most readily, according to Fr. W. Marquardt, by a caustic taste. The English magnesia was found to be particularly contaminated with lime, imparting to the tongue a most decided caustic taste.



A New Measuring Funnel.

THIS is the recent invention of Daniel B. Lester, of Savannah, Ga. (patent No. 202,734, April 23d, 1878). Measuring funnels, graduated on their inner surfaces, are by no means new. The improvement, in the present instance, consists in the flat spring, secured exteriorly of the funnel and within the handle, in combination with the thumb-lever, and the valve-rod secured to the side of the funnel with bearing strips, whereby displacement and derangement of the said rod and spring are prevented. Another improvement is the ring attached to the handle and adapted to engage the end of the lever.

As claimed by the inventor of these improvements, this construction of funnels is very advantageous in filling bottles, since, when one has been filled, by closing the valve, the funnel with its contents can be transferred to another vessel, thus avoiding the use of a vessel to measure and hold the fluid, distinct from the funnel.

Iodide of Potassium in Asthma.

PROF. G. SEE gives the following as the result of his experience in the treatment of asthma with iodide of potassium. Severe attacks are generally arrested after from twenty-four to forty-eight hours, and there is a marked diminution of dyspnœa and oppression in two or three hours; if the treatment is continued long enough, the disease is often cured.

If the iodide is given a short time before an habitual attack, it will sometimes prevent it, and if given during the attack it will render it less severe. It should be given in doses of from 1.50 gram to 3 grams a day at meal time. Its action is to augment the secretion of mucus in the bronchi, thus causing the dry *râles* to disappear, and rendering the respiration easier by permitting the air to penetrate into the pulmonary vesicles. Orthopnœa gives place to normal respiration, and emphysema and exaggerated sonority disappear.—*Mouvement Médical, Feb.* 2, 1878.

Arseniate of Gold in Lupus and Cancer.

To Dr. Chrestien is due the credit of being the first to use a combination of gold and arsenic. . . . . Chrestien having treated phthisical patients with the chloride of gold and arsenic alternately, immediately discovered the similarity of their action. The first applications in France were made by Dr. Massart, who administered the arseniate of gold in cancer and in phthisis, and who had the honor of seeing his remarkable work approved by the *Sociétés de Médecine* of Lyons and Toulouse.

Italian and American observations have established beyond a doubt that diseases such as lupus, depending upon scrofula, are rapidly ameliorated and ultimately cured by the arseniate of gold. The first effect of the arseniate of gold is a rapid increase of appetite. As Harless, Biet, and Cazenave have already remarked, the peristaltic contractions of the stomach and intestine are excited, and absorption occurs with greater rapidity. The arseniate of gold then directly involves the nutrition of the anatomical elements, and consequently exercises a direct effect upon the different varieties of anæmia and chlorosis.—*La France Médicale* and *The Clinic.*

A Reaction for Elaterin.

THE active principle of elaterium gives, according to Dr. Lindo, a beautiful color-reaction with carbolic and concentrated sulphuric acids. If a few crystals of elaterin are placed into a small porcelain dish, and a few drops of melted carbolic acid are added, the crystals dissolve without color. On now adding a few drops of concentrated sulphuric acid, a magnificent intense crimson color makes its appearance, which changes first to orange, and after a while to scarlet. The color is destroyed by alkalies. No other proximate principles or alkaloids, so far as known, give this reaction. Instead of melted carbolic acid, fragments of the crystals may be taken and dissolved by a few drops of alcohol or chloroform. With sulphuric acid alone, elaterin does not give a characteristic color. The same test may also be applied to elaterium, previously powdered.—*Pharm. Z. f. Russl.* from *Chem. Centralbl.*

The Purity of Chloral-Chloroform.

MESSRS. SCHERING and Holtz, of Berlin, announce that they are about to institute comparative investigations, on a large scale, of the various chloroforms of the market, whether prepared with chloride of lime or from chloral, in order to arrive at reliable and conclusive results as to the justness, or otherwise, of the strictures made by Mr. Schacht on their own product made from chloral hydrate. (NEW REM., vii., p. 43.)

RECENT PAPERS.

Mouvement Medical. 2–8.

"*The Value of Creosote in the Treatment of Phthisis.*" E. LABBE: Out of ninety-three cases of phthisis treated by Messrs. Bouchard and Gimbert with creosote, twenty-five were apparently cured, in twenty-nine the symptoms were ameliorated, in eighteen there was no improvement, and twenty-nine died. It is the opinion of the author that creosote is beneficial in the majority of cases of phthisis, and he knows of no class of cases in which it is contra-indicated. The following rules should be followed in its administration:

"Give none but pure beach-wood creosote.

"Give it internally, completely dissolved, and largely diluted.

"Give it in relatively large doses (40 to 80 centig. in 24 hours).

"Continue its use for a long time."

La Ruche Pharmaceutique. No. 4.

Test for Oil of Santal. Owing to the many adulterations of this oil, at present in vogue, the author of a paper on Santalum citrinum in the above-named journal (Mr. Durand) draws attention to a few previously published tests.

1. Prepare a fresh ammonia copper solution, by saturating water of ammonia with black oxide of copper, and filtering. Then mix 20 gm. of the filtrate with 80 gm. of distilled water. Place 10 gm. of this solution into a test-tube (1 centimetre wide) and add 2 gm. of the oil. Shake forcibly. After 24 hours, the contents of the tube will have formed a white and opaque soap. If the oil of santal contains any oil of cedar, even as little as $\frac{1}{10}$ per cent, the soap has a more or less green tint.

2. A mixture of bromine 6 gm., alcohol, 90 per cent, 20 gm., and water 64 gm. produces different reactions with the oils of cedar, copaiva, and santal. The reaction is made with 1 gm. of the oil and 15 gm. of the above solution. The precipitate formed with oil of santal looks like liquid honey; that with oil of cedar like tar; and that with oil of copaiva has an olive-green look. By practice, a mixture of these oils may be recognized to a fraction of 1 per cent.

Pharmaceutische Zeitung. Nos. 29–36.

Padang-Cinnamon. (H. HEINTZ.) A new variety of cinnamon, called "Padang-Cinnamon," has lately made its appearance in the market. Its appearance is like Chinese cassia in shape, although lighter in color, less aromatic in taste, and still less odorous and leaves 3.5 per cent of ash.

The author has also lately found *original* packages of cinnamon in the market which contained evidently a mixture of genuine cinnamon and such as had been deprived of its oil.

Adulterated Lard from New York. (H. HEINTZ.) The author reports that Holland sends to Germany invoices of lard which contain up to 22 per cent of water. This is said to be imported from New York, and to be made by the firm "Milnor & Co." It is sold by J. Goldschmidten in Zonen and H. W. Maaser, in Amsterdam.

We believe the above firm to be an invention of the Dutch dealers, as we cannot trace the existence of such a firm.

Berichte d. Deutsch. Chem. Gesellschaft. 1877, No. 10.

Distillation of Oil of Turpentine by Steam. (ALEX. NAUMANN.) The author finds that, in distilling oil of turpentine by steam, the temperature of the vapor is 1.6° C. above that of the liquid, and that 71 volumes of water distil over for every 100 volumes of the oil.

Archiv der Pharmacie. April.

Detection of Carbolic Acid in Urine. (PROF. G. DRAGENDORFF.) Since it is inadmissible to attempt the elimination of carbolic acid from urine by distillation, because normal urine under these conditions develops carbolic acid, the author has tried the effect of shaking the urine with petroleum-ether, and finds that, 1st, normal urine does not yield anything to petroleum-ether which gives carbolic acid reaction; 2d, normal urine mixed with sulphuric acid behaves indifferent against all carbolic acid reagents, except Miller's solution (solution of nitrate of mercury, containing a little nitrous acid); 3d, but urine containing carbolic acid yields the whole of it to the solvent, and may be recognized by all carbolic acid reagents, if applying them to the residue of the petroleum-ether solution at the moment when the last trace of solvent disappears.

Quinia Tannate. (J. JOBST.) The author finds that quinia and tannic acid can form but few definite compounds. A great variety of so-called tannates may be prepared which are the more tasteless the more tannic acid they contain. In order to produce a uniform salt, definite amounts of tannic acid and quinia sulphate must be brought together. The author disapproves the present fashion of favoring tasteless quinia tannates, because they are poorer in quinia the more tasteless they are. He therefore condemns the proposal of Haaxman (NEW REM., 1877, 235) to wash the quinia tannate with hot water, for this produces a compound very poor in quinia. It is also necessary to examine the commercial tannates for the identity of the alkaloid, since tannates of the cheaper cinchona alkaloids are often substituted. [The method of analysis has been given in our April number, page 117.]

Journal de Pharmacie d'Anvers. April.

On Scammony. (C. GOVAERTS.) The author has examined several lots of scammony of the market, and finds a good deal of it to be very inferior or adulterated. Three samples yielded the following results:

	Aleppo S. (good)	Ordinary S.	So-called "Aleppo" S.
Resin	85	20	8
Gum	4	10	3
Starch	0	63	75
Mineral Matters	11	7	14
	100	100	100

Dingler's Polytech. Journal.

Determination of Acids in Fats, Oils, etc. (D. E. GEISLER.) Dilute the fat or oil with two or three times its volume of ether, or dissolve it in this quantity, add a drop of alcoholic solution of rosolic acid,* and titrate with an alcoholic solution of potassa of known strength. The liquid assumes a fine red color with the least excess of alkali.

Volatile Oils from Wood-Tar. (DR. GEORGE THENIUS.) On repeatedly rectifying the oils obtained in the distillation of wood-tar, there are finally obtained five hydrocarbons, boiling at constant temperatures, and differing in specific gravity, which the author designates as follows:

	Boils at	Spec. Gr.
1. Iridol	47° C.	0.660
2. Citriol	52° C.	0.700
3. Rubidol	57° C.	0.750
4. Coridol	60° C.	0.800
5. Benzidol	70° C.	0.850

The first has an aromatic ethereal odor and strongly refracts light. It has great solvent powers. The second is much less refracting, and has a distinct turpentine odor. The third, fourth, and fifth do not refract light, and have very little odor. If chlorine gas is passed through these various hydrocarbons, some remarkable products are obtained. *Iridol* is decomposed into a camphor-like body, crystallizing in white needles (a cholorine compound) and a new oil of strong *aromatic* odor, not particularly specified by the author. *Citriol*, under the same circumstances, yields a secondary colorless distillate, which is identical in odor with *oil of lemons*. *Rubidol* yields a secondary distillate of the odor of *raspberries*. *Coridol* yields a similar one having the odor of *oil of coriander*. *Benzidol* yields one having a strong odor of *cinnamon*.

* Or better of phenol-phthalein.—Ed. N. R.

Pharmaceutische Post. Nos. 7–8.

Antiseptic Dressing. (A. POHL.) The author recommends to deprive the gauze of its fat, before impregnating it with carbolic acid, by washing it in a solution of sal soda. He also prefers to impregnate the fabric thus treated, in a copper-boiler which is hermetically closed and provided with a safety-valve, with carbolic acid at a temperature of 120° C. For each square metre of the gauze he uses 3.5 to 4 grammes of a mixture of 100 parts pure carbolic acid, and 5 parts strong alcohol, which are sprinkled over the gauze previous to its introduction into the boiler.

Pharmaceutische Zeitschrift f. Russland. Nos. 5–7.

Liquid Albuminate of Iron. (DR. J. BIEL.) The author points out the faults of the formulæ previously proposed, and finally comes to the conclusion that the most agreeable and useful solution for internal administration should contain 0.03 per cent of metallic iron. It is, however, advisable to keep in stock a more concentrated solution, and to dilute it just previously to using.

Pharmaceutische Centralhalle. Nos. 14–17.

Preservation of Hops. (A. BREITHAUPT.) The best method hitherto known to preserve hops, particularly for brewers' use, consisted in impregnating them with the vapor of sulphur. This being, however, objectionable, owing to the impurities often contained in the sulphur, the author has devised a new method, which answers much better. He separates the ethereal oil, which is the cause of the rapid deterioration of hops, and sells to the purchaser both the deodorized hops and the corresponding quantity of essential oil separately.

Journal of the Chemical Society. March.

Decomposition Products of Quinia. (W. RAMSAY and J. J. DOBBIE.) The authors treated 5 gm. of quinia with 50 gm. of potassium permanganate, until all the latter was reduced. The alkaline liquid was filtered from MnO_2, and the filtrate neutralized with nitric acid. On adding lead nitrate to the hot neutral solution, a curdy white precipitate of the lead salt of a new acid (previously noticed also by Cloez and Guignet) was obtained. The lead being removed by H_2S, the clear filtrate on evaporation deposited a red powder, which was later on recognized to be probably identical with Marchand's quinetin, while the remaining liquid yielded a crystalline acid. This was converted into the silver salt, and the acid once more separated. It was found to be dicarbopyridenic acid ($C_7H_5NO_4.H_2O$) no doubt identical with that produced by Prof. Dewar by oxydizing picoline with pot. permanganate.

Boletin del Colegio de Farmaceuticos de Barcelona. No. 5.

Ammoniacal Tincture of Lupulin. As neither water nor alcohol completely extract the active principles of lupulin, it has been proposed to employ aromatic spirits of ammonia as a menstruum. The tincture may be prepared by using 56 grammes of lupulin, macerating them in 473 grammes of aromatic spirits of ammonia for seven days, frequently skaking; finally filtering, and making up the bulk of the tincture by washing the dregs with fresh menstruum, until 473 grammes of tincture are obtained. [For our purposes it would be better to take lupulin 1 part, aromatic spirits of ammonia, q. s., and to percolate until five parts of tincture are obtained.]

Repertoire de Pharmacie. No. 4.

Bonjean's Ergotine. (P. CARLES.) A good preparation, identical with Bonjean's ergotine, may be prepared as follows: 1 kilogramme of recently collected (best in July) ergot is dried in a moderately warm place during 24 hours, reduced to a moderately fine powder, moistened with ½ of its weight of water, allowed to macerate 12 hours, and then packed properly into a percolator, where it is exhausted by cold water. The exhaustion is judged of by the fact that the liquid runs off perfectly colorless. The percolate is evaporated on the water-bath, until it weighs 333 grammes, or ⅓ of the original weight of the ergot. The spec. grav. of this extract will be about 1250 when cold. Two litres of alcohol, of 90 per cent, or six times the original weight of the ergot, are now added to the extract, and the whole well stirred and allowed to settle. A fresh addition of alcohol must cease to produce a cloudiness, otherwise more is to be added until this point is reached. After standing 24 hours, the clear liquid is removed, the residue washed with a little alcohol, which is added to the rest, the alcohol recovered by distillation on a water-bath, and the residue evaporated to the proper consistence. It will weigh about 80 or 90 grammes, which must be immediately placed into vessels, to be tightly closed.

L'Union Pharmaceutique. No. 4.

Canquoin's Caustic. (P. CARLES.) In order to counteract the hygroscopic properties of the chloride of zinc-paste, when made with water, the author proposes to make it in this way:

Fused zinc chloride.....10 parts.
Alcohol, 60 per cent..... 2 "
Wheat-flour.....15 "

Crush the chloride of zinc, rub it with the alcohol, and incorporate with it the flour by assiduous trituration. As soon as the paste is homogeneous, roll it out into a cake about 1 millimetre thick, and after a few hours place it into a flask.

The Practitioner. May.

On Nitre Paper Fumigation as an Expectorant. (DYCE DUCKWORTH.) The inhalation of the fumes of burning nitre paper is especially recommended for relief of bronchitis in aged and feeble persons. The author uses a nitre paper of the coarsest texture, which has been several times painted over with Friar's balsam. A piece four or five inches square is to be burned at each inhalation. Warm cordial drinks are advised as adjuvants, *e.g.*, a cup of hot tea or coffee with brandy or essence of ginger, or a draught of hot water with essence of peppermint or spearmint.

The Laws of Therapeutics. (WILLIAM SHARPE, M.D.) The writer, who is known as an adherent to the homœopathic theory regarding the action of remedies, submits a number of "Practical Rules or Laws of Therapeutics" for the study, especially, of physicians under forty years of age, as follows:—

"1. The seat and kind of action of each drug must be discovered by experiments upon ourselves and others in *health*.

"2. The drug to be given as a remedy must have been found to act in health on the principal *seat* or *seats* of the disease to be treated.

"3. The *kind* of action of the larger doses of the drug, when taken in health, must resemble that of the disease; or at least the drug must have produced similar symptoms.

"4. The *dose* given ought to belong to the range of smaller doses, which in health has a contrary action.

"5. The drug must be given *alone;* otherwise its action will be interfered with, if not neutralized.

"6. When the desired effect of the medicine has been obtained, it must be *discontinued*.

The Use of Mercury in Certain Inflammations. (JOHN C. THOROWGOOD, M.D.) Quotes two cases of syphilitic consolidation and inflammation of lung treated by perchloride of mercury and exemplifying the influence of the remedy over the absorption of the exudation. He refers to the influence of mercury over œdema of mucous membranes; spasmodic asthma with bronchitis and scanty secretion; chronic bronchitis with atrophy of air-cells or deposit in them of pigment; empyema; the early stage of pleuritis, and in peritonitis.

He considers that we have abundant evidence of the power of mercury to disintegrate recent exudations of low vitality, and by causing their removal, prevent damaging structural changes. Poorly nourished persons should take it with cautious supervision. Struma, unless the subject is very weak and ill-nourished, does not contraindicate its use. It is most available and valuable in robust persons, not advanced in years, attacked with exudative or congestive inflammation, attended with fever, loaded urine, and unimpressibility by ordinary remedies.

The Medical Press and Circular. April and May.

The Influence of Green Tea in Counteracting Poisoning by Opium. (JAMES SEWELL, M.D.) A woman, aged 35 years, suffering with angina pectoris, took at intervals of half an hour 2 drachms of Battley's fluid until she became insensible, taking, in all, according to estimate, 3½ fl. ℥. A convulsion and marked symptoms of opium poisoning came on. An enema of ½ pint of strong green tea was given, and in 25 minutes lips became more florid, and respirations from thrice in two minutes to six times a minute. Fifteen minutes later, ½ pint more of tea was given in the same way. In 4½ hours patient recovered consciousness. The same journal, for the 3d of May, contains a discussion of the case, and the issue of May 22d a further communication from Dr. Sewell, reaffirming the facts above quoted, and the value of using an antidote by enema rather than by the stomach, in cases of opium poisoning.

The Art of Prescribing. The editor, on p. 301, comments upon a statement in the *Guy's Hospital Gazette* that "candidates for the second M.B., Lond., are often incompetent to write an ordinary prescription," and says that it is a very common complaint against half the students who appear before the different Medical Examining Boards.

The Lancet. May.

The Local Use of Solutions of Quinia in Chronic Irritation of the Bladder. (T. W. NUNN.) "Dissolve 20 grains of quinia disulphate in 25 oz. of water by the aid of a few drops of sulphuric acid, or a teaspoonful of common brown vinegar. Of this solution inject into the bladder two or three ounces and let it remain." This is recommended in cases where the urine is loaded with pus and has an offensive odor, the bladder being irritable, desire to micturate frequent, where the bladder is but imperfectly emptied, or where enlarged prostate or paralysis call for frequent use of a catheter.

British Medical Journal. March, April, and May.

Accidental Poisoning with Nitrate of Potassium. (J. ASHBURTON THOMPSON, M.D.) A sick person took a soup which had been strengthened by the addition of a liquor in which a pig's face had been boiled, and which had afterwards been boiled down to a jelly. The soup was noticed to be a great deal too salt. Three hours later, nausea and griping set in. At the eleventh hour, some whiskey and nutmeg, which had been taken, was vomited. At the twelfth hour, violent watery purging commenced and continued for an hour. No further symptoms occurred until next day, when a peculiar lumbar aching and hæmaturia came on after drinking gin.

A Ready Mode of Carrying and Administering Croton Oil. W. ALLAN JAMIESON, M.D., recommends the employment of little lead tubes, like those used for holding artists' colors, a tube holding ten or twelve minims being sufficiently large. He also recommends this as a way for dispensing amyl nitrite.—For some time past, certain English perfumers have used lead tubes to hold cologne and handkerchief odors. These tubes have a capillary orifice instead of the large one used for paints, and it is this sort which Dr. Jamieson probably means.

Thymol and its Allies. (FRANCIS T. BOND, M.D.) Cymene, the elæoptene of oil of thyme, is derived more cheaply from t rebine than from thyme. A number of other organic bodies also yield it, viz., cymol—the terpine of oil of cummin. If alcoholic solutions of rectified terebene, cymol, and thymol are compared, they will be found nearly identical.

Acute Phosphorus Poisoning. (W. T. MARTIN, M.D.) Diagnosis was not made during life, and the post-mortem examination would have warranted a verdict of "acute atrophy of the liver." It was only the analysis of the contents of the stomach and intestine, which was undertaken after the accidental receipt of information regarding the true nature of the case, that showed that phosphorus poisoning was the cause of the trouble.

Case of Carbonic Acid Poisoning Treated by Inhalation of Oxygen. (CHAS. B. BALL, M.D.) The poisoning might, in this case, have taken place from carbonic oxide instead of carbonic acid, since imperfect combustion appears to have been the cause. Three persons were affected, but only one required the employment of oxygen. All recovered.

Two Cases of Poisoning by Phosphorus. (F. W. WILMORE.) Two girls, aged 14 and 16, took ½ ounce of phosphorus paste. The subacute symptoms persisted for five days before the relatives became alarmed. Neither pain nor vomiting were severe, and the bowels acted naturally. One patient died, the other (who took the least) recovered. Turpentine was administered through the latter case.

Arsenic for the Prevention of Bromic Acne. EDWARD MACKEY, M.D., confirms the statement of Dr. Roberts Bartholow that the conjoint administration of arsenic (3 to 5 ♏ of liq. arsenicalis) will prevent the eruption of acne which sometimes accompanies bromism.

The Boston Medical and Surgical Journal. March–June.

Eserine and Pilocarpine in the Treatment of Eye Disease. H. W. WILLIAMS, M.D., has employed eserine in the treatment of corneal ulcers for two years past. By contracting the pupil and shutting out light, it is better in its effects than atropia, which leads to the admission of more light than the retina can well tolerate, and causes the spasmodic reflex contractions accompanying photophobia. A drop of a solution of two grains of sulphate of eserine in two ounces of water will cause the pupil to strongly contract in fifteen minutes, and so remain for about eight hours. He indorses Dr. Weber in saying that "calabar has its greatest triumph and its widest application in deep corneal ulceration, and we can assert that the therapeutic value of the means usually employed, such as compressive bandages, warm fomentations, paracentesis, iridectomy, etc., is, with few exceptions, insignificant in comparison with the great efficacy of calabar."

A Case of Belladonna Poisoning. (EDWARD L. PANKO.) By mistake, 2¼ ozs. of tincture of belladonna were taken in two doses, with an interval of a couple of hours, and were followed by dimness of vision, dryness of mouth and throat, a feeling as if the tongue were swollen, dulness of intellect, and incoördination of muscular movements. Two hours later he was put to bed, although conscious but extremely restless. Hallucinations and delusions of vision, and loss of sight were present; pain in region of kidneys, and subsequently some dysuria. There was some "busy" delirium. Treatment was resisted, and only ½ gr. of morphia in whiskey was taken by compulsion. Ten per cent of albumen was deposited from the urine. The urine and pupils became normal in less than a week, but the face remained flushed for many days. Great mental and physical prostration, sleeplessness, and pain in neighborhood of left kidney followed the accident; the pain for a time being helped by a Turkish-bath.

Medical Times (Philadelphia). 271–274.

Chloride of Ammonium in the Treatment of Hepatic Disease. (WILLIAM STEWART, M.D.) [The dose necessary for the full therapeutic effect is ℈i., and the only condition which contraindicates its use is a hot, dry skin in cases of hepatitis, when a diaphoresis should first be induced. The dose may be repeated twice or thrice daily. In hepatic congestion and tropical hepatitis, the symptoms which follow are: first, a feeling of warmth in the epigastrium, commencing in about fifteen minutes after the dose is taken, and extending to the entire surface; a feeling of light-headedness, and, at times, drowsiness; pain along the lower margins of the right ribs is either diminished or quite removed, or is referred to a point nearer the axilla. At this stage, the patient usually falls asleep. After another quarter of an hour, free and general perspiration occurs, and the pain gradually returns, to be again relieved in the same manner, and at longer intervals, until the relief is constant. Micturition is increased in quantity and frequency (chiefly at night). The appetite becomes restored, but solid food must, as yet, be prohibited.

Dr. Stewart enumerates peculiar special symptoms which are to be anticipated as dependent upon the action of the

remedy. The patient experiences a sensation of a "shock," or as if something gave way in the sides; at other times, a succession of shocks is experienced in the hepatic region, accompanied (or not) by a pricking sensation; or the action is described as that of a pulling from one hypochondrium to the other, etc. A single sharp "knock" is apt to be severe and cause the patient to cry out. Immediately after these sensations, the hepatic pain vanishes and never returns with its former severity.]

The Physiological Action of Napellina and Aconitia. (J. MONRO MURRAY, M D., pp. 339, 364 and 388.)

A Case of Peculiar Poisoning by Cyanide of Potassium. (G. F. SONWERS, M.D., p. 345.) A photographer, after working with the cyanide, had soreness of scalp, sleeplessness, pain in lumbar region, delirium, tinnitus, swelling of upper eyelids, loss of apetite, nausea, constipation, chilliness followed by slight diaphoresis, and shortness of breath, pupil not sensitive to light, tongue dark with heavy white coating, sordes, fœtid breath, abdomen tender, no evidence of typhoid.

Unnecessary Hypodermic Medication (G. B. MASSEY, M.D., p. 368.) Seven or eight abscesses followed the injection, in each instance, of ʒij. of chloral hydrate into the connective tissue of the arms of a young woman, by a physician who employed this in preference to the usual method of administration.

Louisville Medical News. April and May.

On the Use of Electricity in the Treatment of Epilepsy. (A. D. ROCKWELL, M.D., p. 165.) This paper was published simultaneously by the *News* and *Medical Record* of the 6th of April.

Asclepias Syriaca. (H. K. PUSEY, M.D., p. 170.) The writer has used this remedy for a number of years in dropsical affections, and desires to obtain the experience of others with it, as the literature of the subject is very limited. He gives it in infusion, and also in the form of powdered bark of the root. It acts as a diaphoretic and diuretic, and in larger doses as a cathartic and emetic. It is also, he thinks, alterative and tonic in its effects. Four cases are reported in the paper. 1. Dropsy from enlarged liver, for which Pt. was tapped five times in succession, at intervals of three months, and six gallons of fluid withdrawn each time—was cured by the use of silk-weed. 2. A girl of 15, anasarca following variola; skin had ruptured from over-distention. Infusion of ½ oz. of silk-weed in O.ij.of water, taken in 48 hours. Breathing relieved in 24 hours; well in one month. 3. Woman, *æt.* 82, organic heart-disease, dropsy of legs, chest, and abdomen. Great relief followed use of silk-weed. Died of pneumonia two years later. 4. Negress, *æt.* 56; ascites; skin over lower extremities had burst. Restored to health after some months through use of silk-weed.

J. O. CROSBY, of Garrett, Ky., in a subsequent number (p. 233), writes on the use of this remedy, that he also has used silk-weed in almost every case of dropsical effusion that has come within his practice in ten years, with results equally gratifying and unexpected as those related by Dr. Pusey. He finds that an infusion of alder (*Sambucus Canadensis*) modifies the emetic and cathartic action of the drug.

The American Mistletoe. (E. S. CROSIER, M.D., p. 171.) Referring to article on Viscum album [see NEW REM., April, p. 112], says that the mistletoe found in our woods is *not* the *V. album* of Europe, but belongs to another genus of which several species exist in the U. S. *Our* mistletoe is the *Phoradendron flavescens* of Nuttall, and, though considered by Pursh to belong to the genus *Viscum*, has long since been acknowledged to belong to Nat. Ord. *Loranthaceæ*, only two of its twenty-five genera being indigenous to North America—*Phoradendron*, and *Arceuthobium*, the latter belonging to Mexico and the West coast, where it is represented by *A. campylopodium* Engl., which was also discovered in Northern New York, in 1871, growing on the black spruce. The author gives also a summary of the American species of mistletoe.

ARTHUR G. HOBBS, writing on the use of mistletoe as an oxytocic, gives his experience with it as recommended by Dr. Long. He cites three cases; two of them obstetrical, a third one of menorrhagia, and says, "My experience with the parasite is, that it acts more promptly and more decidedly as an oxytocic than ergot."

Bad Medicine. (LUNSFORD P. YANDELL, M.D. p. 201.) Calls attention to a number of spurious and bad preparations of dialyzed iron, tasteless tincture of iron, quinia sulphate, sweet spirits of nitre, and Hoffman's anodyne which he has found in the market; speaks favorably of Cascara Sagrado as a laxative, says that, in his hands, picrate of ammonium has failed as an antiperiodic, and that no honorable man can prescribe Tamar Indien, while, at the same time, he recommends a local unofficinal preparation of indefinite composition.

In a succeeding number of the *News* (p. 216), Dr. Yandell's article is answered by MR. VINCENT DAVIS, a pharmacist of Louisville, who thinks that some of Dr. Yandell's want of success in the use of commercial quinia may have resulted from acquired tolerance following its prolonged administration; the symptoms described by Dr. Yandell (*e.g.*, "excessive dryness of the nose and throat, fulness of the head, vertigo and nausea") as being rarely produced by quinia, being, in fact the identical ones attributed to it by Wood and Bache when it is taken in large doses. While agreeing with Dr. Yandell that the evil of "bad medicines" exists and is great, he holds the prescribers in a degree responsible, through their encouragement of "Cheap-John" shops.

EMIL SCHEFFER, the well-known Louisville pharmacist, in the next number of the *News* calls attention to the fact that so many well-educated pharmacists find, on going into business, that instead of their skill and ability being appreciated and made use of, they become only "venders of ready-made medicines. Of the hundreds of preparations in their stores, made conscientiously according to the U. S. Pharmacopœia, hardly one-tenth are used nowadays, but instead of them Mr. H. H.'s elixir, Mr. So-and-So's pills, Mr. X.'s fluid extracts, syrups, etc." [See, also, page 161 of this number of NEW REM.]

Muscular Rheumatism Treated by Salicylic Acid. (E. W. KING, p. 205.) Salicylic acid served better than quinia, morphia, and bromide of potassium, or local application of iodine and aconite.

The Medical and Surgical Reporter. 1099–1108.

Guaiacum in Quinsy. R. J. FRITZINGER recommends the following as a formula for its administration:

℞ Potassii chloratis..... ʒ i.
Spts. ætheris nitr..... ʒ iv.
Tr. guaiaci,
Syr. aurant. cort.....āā ʒ vi.

M. Sig. A teaspoonful every two hours in water. A tablespoonful, or just so much water as will allow the warming and astringent effect of the guaiac to be felt in the act of swallowing, should be used, and the swallowing should be done slowly. If the bowels move too freely, the dose may be diminished.

Dialyzed Iron Administered Hypodermically. (M. DIEHL, p. 277.) In a case of anæmia, the remedy was used in doses of 8 minims, combined with an equal amount of water, and was injected into the arm. Very little irritation of the skin and no abscesses resulted. The dose was subsequently increased to 16 minims.

Treatment of Post-Nasal Catarrh. J. W. BARD advises the smoking of a mixture of 2 parts of powdered cubebs to one part of chamomile flowers, in cases of sub-acute and chronic nasal catarrh, the smoke to be expelled through the nostrils.

The Action of Jaborandi. (A. H. METLERSH.) Three cases exemplifying the uncertain action of the drug. In each case a decoction made with one-half drachm of the leaves was used. In one case, diuresis, in another, diaphoresis, and in the third, salivation was caused, and in neither was there any action upon other glands—p. 298.

Arsenical Poisoning Treated with Dialyzed Iron. (G. M. ARNOLD, M.D.) A child was poisoned by eating a cake of water-color, composed of "Scheele's Green." Vomiting was brought about by the use of an emetic, and fol-

lowed by the iron diluted with water. Further emesis brought up a brown insoluble substance. The paint was afterwards found in fæcal movements in its natural color, and later in combination with the iron in the shape of a brown precipitate—page 339.

Therapeutic Use of Salicylic Acid. (J. A. HONTS, M.D.) His experience in a dozen well-marked cases of rheumatism has been that the disease succumbed within a week from the commencement of the treatment. No unfavorable effects had been noted. Salicylate of sodium was the form employed; the following being the prescription used:

℞ Acidi salicylici..... ʒ i.
Spts. æth. nitrosi..... f. ʒ vi.
Sodii bicarbonatis..... gr. lxx.
Spts. lavendulæ co.....f. ʒ ij.
Aquæ.....f. ʒ ij.
Syr. aurantii corticis .....q. s. ut ft. ʒ vi.

M. Sig. One tablespoonful every three to four hours.

Memo.—Mix the acid and the spirits of ether in a bottle, add the soda, and afterwards the water gradually, and then, when effervescence has ceased, add the lavender and syrup. This is said to be pleasant to take, and not likely to disturb the stomach—p. 357.

Anæsthesia by Rapid Respiration. (Bonwill's Method, A. H. R. GURLEY, M.D., p. 358.) Breathing full, ninety times a minute, will produce anæsthesia of the surface of the body in less than five minutes, so that the puncture of the skin with a needle will not be felt. This result is brought about, not because of a superoxygenation or an excess of nitrogen, as claimed by Bonwill, but because the rapid respiration leads to a withdrawal of the blood from the surface of the body, and a corresponding congestion of the lungs. The peripheral nerves being, in a measure, deprived of blood, lose, temporarily, their capacity for receiving impressions.

Arsenical Poisoning Treated with Dialyzed Iron. (H. N. CANER, M.D., p. 359.) A case in which arsenic had been taken with suicidal intent, amount not known, but estimated at 10 to 15 grains—was treated with dialyzed iron, *followed* (!) by an emetic, and recovered.

Arsenical Poisoning Treated with Hydrated Peroxide of Iron. (G. LAW, M.D., p. 402.) This physician writes from Colorado, where Paris green is used by the ton as a poison for potato beetles, but where, strange to say, arsenical poisoning is extremely rare. The treatment of the cases reported includes nothing novel.

Strychnia Poisoning. (P. H. BAILHACHE, p. 412.) Five to ten grains of the sulphate were taken by a young man with suicidal intent. Recovery followed the use of a variety of antidotes. The points of special interest in the case were the size of the dose, the rapid emesis caused by mustard water, the copious discharge of strychnia in the urine, a remarkable antipathy to cold water, and tetanic spasms caused by the sound of pouring water.

American Journal of Pharmacy. May.

Chamælirin. (DR. FR. V. GREENE, U. S. N.) "Blazing-Star" root, from *Chamælirium luteum* Gray (*Helonias dioica* Pursh.) has been shown to be a valuable uterine tonic, being used with good success in the treatment of leucorrhœa, amenorrhœa, and dysmenorrhœa, as well as to correct a tendency to repeated abortion. The author found it to contain a glucoside, which he has named chamælirin, to the amount of about 10 per cent. This substance is soluble in hot and cold water and in alcohol, nearly insoluble in ether, entirely so in petroleum-benzine, chloroform, carbon disulphide, etc., and has an intensely bitter taste.

The Champagne Crop.—The Rheims Chamber of Commerce reports that 16,207,841 bottles of champagne were exported from France last year, and estimates the average selling price at 3 fr. a bottle. The number of bottles retained for consumption in France was 3,629,421.

BIBLIOGRAPHY.

CONGENITAL OCCLUSION AND DILATATION OF LYMPH CHANNELS. By SAMUEL C. BUSEY, M.D., etc. New York: William Wood & Co., 27 Great Jones Street, 1877. 8vo, pp. 187.

THIS is a republication of a series of papers published in the last volume of the *American Journal of Obstetrics and Diseases of Women and Children*. The notes of over eighty-eight cases are given in detail, and nearly all are elegantly illustrated with wood-cuts. Although the number of cases coming under this head are considerable, very little is generally known in regard to the subject, and Dr. Busey has placed the medical profession under very decided obligations by the untiring industry and admirable manner with which he has gathered these materials together. Besides another essay on the acquired forms of diseases of lymphatics published by him in the *N. O. Med. and Surg. Jour.*, there are about one hundred pages yet unpublished which we hope the profession may soon have.

NELSON'S HAND-BOOK OF PRIVATE FORMULAS. By JOHN H. NELSON, Cleveland, Ohio, 1878. 4to, pp. 206, $3.00.

THIS work contains over 500 formulas for a great variety of elixirs, wines, syrups, emulsions, perfumes, and cosmetics, etc. The collection appears to have been made with care and discretion, and includes hardly any that are to be found in official works. The sources from which the formulas have been derived are not noticed, but the compiler vouches for their practical character, and for the success which will follow a careful attention to the directions given. Many of the formulas are quite novel, and one in particular called "syrup—you know—don't care," consisting of syrup, 1 gallon; whiskey, ½ gallon; essence of nutmeg, 1 ounce; is no doubt a successful prescription in many chronic cases. The author's address is Bangor, Mich.

FOURTEENTH ANNUAL REPORT of the Alumni Association, etc., of the Philadelphia College of Pharmacy. 8vo. Phil., 1878.

A REMARKABLE CASE OF MORPHINE TOLERANCE by an Infant. By JAMES L. LITTLE, M.D. Reprinted from the *Am. Journ. of Obstet. and Dis. of Women and Child.* 8vo, pp. 6.

AN infant who suffered three weeks after birth from an inflammation of its right knee-joint, was given paregoric, and then laudanum, in gradually increasing doses, to quiet pain, until two teaspoonfuls of the latter were taken at a time, then Magendie's solution of morphia was resorted to; at first in drop doses, until at the time it was eight months of age, the child took two fluid-ounces of the solution (32 grains) in twenty-four hours.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by DR. H. VON ZIEMSSEN. ALBERT BUCK, M.D., editor of the American edition. New York: William Wood & Co., 1878. 8vo, pp. 968.

VOLUME XVII. of this series (the fourteenth in order of publication) has recently come to hand. It comprises two parts, the first devoted to general anomalies of nutrition, the second to poisons. A chapter by Prof. H. Immerman, of Basle, relates to Hæmophilia, Scurvy, and Purpura hæmorrhagica.

Prof. R. Bœhm, of Dorpat, contributes chapters on poisoning by chlorine, iodine, bromine; by sulphuric, hydrochloric, sulphurous, acetic, tartaric, and oxalic acids; by ammonia and sal ammoniac, caustic and carbonated alkalies, salts of the alkalies and earths, barium compounds and alum; by alcohol, chloroform, ether, chloral-hydrate, amylene, bichloride of methylene, ethylidine, nitrous oxide, carbonic oxide, carbonic acid, bisulphide of carbon, sulphuretted hydrogen, prussic acid, and allied substances, benzine, nitro-benzine, aniline and aniline dyes, by carbolic acid and nitro-glycerin, and by tainted articles of food, such as sausages, fish, cheese, etc.

Prof. B. Naunyn, of Kœnigsberg, writes about the poi-

sonous properties and effects of the heavy metals and their salts, *e. g.*, lead, copper, zinc, silver, mercury, antimony, iron, manganese, chromium, tin, bismuth, gold, thallium, osmic acid, phosphorus, and arsenic.

Prof. H. von Boeck, of Munich, is the author of a section on the Vegetable Poisons, and includes the following substances in his paper: Atropia, hyoscyamia, solania, physostigmia, digitalia, veratria, colchicia, helleborin and helleborein, aconitia, delphinia, nicotia, strychnia, brucia, picrotoxin, conia, cytisin, Cicuta virosa, Œnanthe crocata, cynopin, curare, opium and morphia, santonin, ergot, and fungi.

ATLAS OF THE DISEASES OF THE SKIN. By BALMANNO SQUIRE, M.B. London: J. & A. Churchill, 1878. 8vo, pp. 89, with 4 col'd plates. 10*s.* 6*d.*

THE first part of this new serial has just reached us, and is a notable departure from the conventional form of atlases, being an octavo instead of quarto or folio, as such works are usually published. The convenience of such a size needs no comment to recommend it. The merit of the work does not rest, however, solely upon its handy shape, since the plates are in color, and are good representations in nearly life-size of the part affected. In the present case the face is chosen, and the four plates represent respectively: I., A case of Vascular Nævus; II., Vascular Nævus with Molluscum; III., Psoriasis (Diffusa) or "English Leprosy;" IV., The same after treatment.

The text is also illustrated with wood engravings of apparatus and of pathological appearances of tissues, and comprises rather more matter than is customary to include in an atlas. We question whether, in a work which necessarily involves considerable expense for its illustration, it is wise to give plates like the last one of the series, in which but little deviation from health is apparent, and which teach little or nothing.

METRIC WEIGHTS AND MEASURES for Medical and Pharmacal Purposes. By OSCAR OLDBERY, PHAR.D., Chief Clerk and Acting Medical Purveyor U. S. Marine Hospital Service. Reprint from the Annual Report of the Surgeon General for 1877. 16mo, pp. 40.

THIS is a nicely arranged pocket-book which would be of great service to those who desire to accustom themselves to the use of the metric system in prescribing. In addition to matter referred to by us in our last number (page 160), the work contains a table of approximate equivalents of apothecaries' weigths and measures in metric terms, and a posological table in which the doses are expressed in terms of both the apothecaries' and the metric system of weights and measures.

THERAPEUTISCHER ALMANACH FUER 1878. By DR. G. BECK. 12mo, Leipzig, pp. 73.

THIS contains a résumé in condensed form of the various remedies for various affections which have been mentioned in periodical literature during the preceding year. The publication, in which the original paper or an abstract of it may be found, is also mentioned, rendering the Almanac exceedingly serviceable as a therapeutical index.

MITTHEILUNG der K. K. Chemisch-Physiol. Versuchsstation für Obst- und Weinbau in Klosterneuburg. Beiträge zur Klärung und Conservirung des Weines. By DR. L. ROESLER and DR. L. WEIGERT. Folio, Wien, 1878, pp. 63.

PROCEEDINGS of the Connecticut Pharmaceutical Association, at the Second Annual Meeting held in New Haven, Ct., Feb. 6th, 1878. 8vo.

FORMULÆ of the Northwestern Dispensary of the City of New York. 12mo, pp. 12.

THE HAYFORD PROCESS AND APPARATUS FOR PRESERVING TIMBER. By EDW. R. ANDREWS. Philadelphia, 1878, 8vo.

INTOXICATIONEN. By DR. C. BINZ, Ordentlich. Professor in Berne, Switzerland. 8vo, pp. 44.

A FASCICULUS from the more recently published Handbook on the Diseases of Children. Edited by Gerhart. The following Toxicants being included: Santonin, Opium and Morphia, Atropia, Hyoscyamia, Solania, Colchicia, Cytisin, Taxin, Oleandrin, Cicutoxin, Cynapin, and Arsenical colors. Want of space prevents a more extended reference, at present, to the merits of the chapter.

REMARKS UPON THE CAREER AND FAILURE OF JOHN F. HENRY, CURRAN & CO. By D. C. ROBBINS, New York. 1878. 8vo, pp. 8.

MEDICAL SCIENCE *vs.* EXCLUSIVE HOMŒOPATHY: A Reply to Edward Bayard's "Plea for pure Homœopathy against Eclectic Homœopathy." By EDWARD P. FOWLER, M.D. New York: 1878. 8vo, pp. 12.

A CRITICAL PERIOD FOR HOMŒOPATHY. By E. M. HALE, M.D., Chicago: A Reprint from the *American Homœopathist*. 8vo, pp. 4.

NEW MEDICINES. A Monthly Journal of Progressive Medicine and Pharmacy. Atlanta, Ga. FERDINAND KING, M.D., PH.G., Editor and Proprietor. L. G. ALEXANDER, M.D., Associate Editor. $1.00 a year. 8vo, pp. 25.

THE first number appeared in April.

FLUID EXTRACTS BY REPERCOLATION. By EDWARD R. SQUIBB, M.D., Brooklyn. Reprinted from the *American Journal of Pharmacy* for May 7th, with additions by the author. 8vo, pp. 43.

THREE LECTURES ON HOMŒOPATHIC PHARMACEUTICS. By F. E. BOERICKE, M.D. Boericke and Tafel. New York and Philadelphia. 8vo, pp. 50.

THIS is the most lucid explanation (unless the British Homœopathic Pharmacopœia be excepted) of the pharmaceutical manipulations peculiar to this method of practice that has yet come to our attention.

OLD AGE: Its Diseases and Hygiene. By LUNSFORD P. YANDELL, M.D. Louisville, Ky. Reprinted from the *American Practitioner* of Feb., 1878. 8vo, pp. 14.

THIS, we believe, was the last of the multitude of papers contributed to our literature by this remarkably gifted man. That it should have chanced to be on such a subject is only a coincidence, since the approach of his last days seemed in no wise to influence the powers of his mind, or interfere in any considerable degree with his untiring industry.

THE VEST-POCKET ANATOMIST (Founded upon "Gray"). By C. HENRI LEONARD, A.M., M.D. 2d Ed. VI. Thousand. Detroit: 1878. 12mo, pp. 60. 50 cents.

THE author is already known as the maker of a number of handy-books which have become popular among physicians and students, and this "Gray" boiled down—so to speak—deserves to rank with the best of them. It is not to be expected that, within the limits noted, one will find any lengthy disquisitions on comparative anatomy, or the development of the vertebral arches in the human fœtus. The amount of matter relating to the anatomy of the adult body will, however, be found quite surprising.

SPEECH OF HON. FERNANDO WOOD, of New York, on the Tariff Bill, in the House of Representatives, April 9th, 1878.

LECTURE NOTES ON CHEMICAL PHYSIOLOGY AND PATHOLOGY. By VICTOR C. VAUGHAN, M.D., PH.D. Ann Arbor: 1878. 8vo, pp. 73.

THIS is a series of notes published by the author, who is a tutor in the University of Michigan, at the request of the students, and includes many practical hints which will recommend it to persons not pursuing the University course.

INSANITY IN ANCIENT AND MODERN LIFE, With chapters on its Prevention. By DANIEL HACK TUKE, M.D. London: Macmillan & Co., 1878. 8vo, pp. 276, $1.75.

THE ability of Dr. Tuke to write upon this subject, so as to appeal to the understanding of professional readers, was long since established. In the present instance, the work seems to have been more especially intended for the

general public, although it will undoubtedly find an admirer in every one who makes the study of insanity a special pursuit. The subject is treated under the following general headings: 1. On the Prevalence of the Causes of Insanity among the Nations of Antiquity. 2. Insanity in Relation to Modern Life. 4. Auto prophylaxis or Self-prevention of Insanity. The last section should at least recommend the book to a wide circle of readers.

NINTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MASSACHUSETTS. Jan., 1878. Boston: 1878, 8vo, pp. 529.

THE annual reports of the Massachusetts State Board of Health are second to none which appear from any similar organization. They are based upon extensive observation; evince thorough work, and contain practical suggestions.

The present volume has essays upon the following topics:—1. The General Report; 2. Metric System; 3. Expenses of the Board; 4. Drainage and Health; Sewerage, and the Pollution of Streams, including the Draft of a Law; 5. Cottage Hospitals; 6. Dangers from Color-Blindness; 7. The Filtration of Potable Water; 8. Sanitation of Public Schools in Massachusetts; 9. Scarlet Fever; 10. The Sanitary Condition of Cambridge; 11. Health of Towns, Typhoid-Fever, Diphtheria, Prevalent Diseases, etc.; 12. Index. The report may be obtained, postage paid, by such as desire it, by sending ninety-eight cents to the Secretary of the Commonwealth.

BRAIN: A JOURNAL OF NEUROLOGY. Edited by J. C. BUCKNILL, M.D., F.R.C.P., F.R.S.; J. CRICHTON-BROWNE, M.D., F.R.S.E.; D. FERRIER, M.D., F.R.C.P., F.R.S., and J. HUGHLINGS-JACKSON, M.D., F.R.C.P. New York: Macmillan & Co. April, 1878. 8vo, pp. 142. Quarterly. Annual subscription, $4; per number, $1.25.

IF this new quarterly sustains the character indicated by its first number, it cannot fail of success. The original articles are as follows:—Notes on the Symptom-Significance of Different States of the Pupil, by Jonathan Hutchinson, F.R.C.S.; Motor Feelings, and the Muscular Sense, by Geo. Henry Lewes; On the Rôle of the Dura Mater and its Nerves in Cerebral Traumatism, by H. Duret; On some Symptoms of Severe Brain Disease, by W. H. Gowers, M.D.; On Brain-Forcing, by T. Clifford Allbutt, M.D.; On the Comparative Structure of the Cortex Cerebri, by Bevan Lewis, F.R.M.S.; and On Skull-Mapping, by Crochley Clapham, L.R.C.P., London.

Book-Reviews, Clinical Cases, and Abstracts from British and foreign journals complete the number. Nothing is needed in the way of comment to show the interesting nature of most of the above papers.

ANALYSES OF PHARMACEUTICAL CHEMICALS AND PREPARATIONS.

We are now prepared to send samples for the August prize to such as may desire to compete for it. Answers must be received before the 20th of July, and be accompanied by a sealed envelope containing the name of the writer, and designated by a device or motto, which is also to be placed, instead of the writer's name, upon the report of the analysis.

Persons to whom a prize has been awarded are requested to send to the publishers the title of any book or books they may desire, not exceeding in the aggregate the value of $10.00.

OWING to an oversight, the June samples were sent to competitors too late to allow time for analyses to be made and forwarded to this office; consequently those who have received samples may report upon them for the July prize, and other competitors will be supplied with the same sample.

The present paper will give a description of the apparatus and chemicals necessary for the qualitative examination of a stock of drugs.

In the first place, let no person neglect to undertake qualitative analysis from the idea that an expensive and complete set of chemicals and fixtures is necessary. Very good and satisfactory work can be done with very little apparatus and not a large number of reagents.

The following list embraces all articles really requisite:

I. *Pure water.*—This may be obtained by distilling rain- or well-water according to directions under "Aqua destillata," U. S. P. Tinned-copper stills and condensers are usually employed, but for small operations a good-sized glass retort and receiver are sufficient. (Fig. 1.) The first portion of distilled water is thrown away, as it contains ammonia, which is present in small amounts in nearly all natural water; the very last portions are also impure and should be rejected.

Water of great purity may be caught in clean tin or porcelain dishes toward the latter part of a shower. In no case should it touch any roof, or it will be contaminated with organic matter, dust, etc.

Melted ice gives tolerably pure water, and for some purposes filtered water will answer. In no case will it do to use "*aqua pumpæ*" in chemical analyses, or wrong results will be obtained. Pure water should be kept in clean, well-corked bottles, and should stand all the U. S. P. tests for purity. In addition, it should give no coloration with potassic mercuric iodide (absence of ammonia), and no test for nitrous and nitric acids.

II. *Rinsing water.*—Any good well or cistern water will do, provided the apparatus is well dried with a clean towel, or is rinsed with distilled water before being used.

III. *Heat.*—In a store where gas is used, all that is requisite is a good Bunsen's burner (fig. 1) and a few feet of rubber tubing. If gas cannot be had, a kerosene lamp may be used. A conical chimney of sheet iron, covered with fine brass gauze (fig. 2), will prevent smoking. The solid or liquid to be heated can be placed in a suitable dish on the water-bath (fig. 3) or sand-bath (fig. 4), and supported a little above the lamp. The kerosene oil stoves, sold by hardware dealers, serve a very good purpose in larger operations, and cost but a few cents per day for fuel. An ordinary alcohol lamp is occasionally useful, for boiling liquids in test tubes, testing for alkalies, etc., but alcohol is too expensive a fuel for most purposes.

IV. *Glassware.*—1. About a dozen test-tubes, 3 or 4 inches long, also a few larger ones. They should be of hard glass, and must not blacken when melted in the flame (absence of lead).

2. One or two small evaporating dishes, worth from twenty to forty cents each. The best are known as "Berlin ware," are quite thin and translucent, and will stand a high heat without breaking.

3. A few small beakers, 2 to 4 oz. capacity. Those shaped like fig. 5 stand heating on sand-bath; fig. 6 is the ordinary shape.

4. About three small funnels, 1½ to 3 inches diameter. Each funnel should have an internal angle of just sixty degrees, so that the filter paper may fit it exactly. If the end of the neck be beveled, by grinding on a stone or emery wheel, liquids will filter more rapidly (fig. 7).

5. A wash-bottle holding about a pint (fig. 8). The piece of rubber tubing upon the delivery tube makes it more easy to direct the water to any part of the filter.

6. One or two flat-bottomed flasks of 4 to 6 oz. capacity; they can be fitted with rubber corks and bent-glass tubes, to make a generator for hydrosulphuric acid, hydrogen, etc. (fig. 9). If flasks cannot be spared for this purpose, empty morphine or quinine bottles may be used.

7. Glass tubes, stirring-rods, etc.

V. *Miscellaneous.*—1. Filter papers. For all analytical work, the best paper is the "Swedish," and the best brand "Muncktell." It is quite expensive, but it is poor economy to use cheap paper, as it is almost sure to contain

considerable lime, magnesia, iron, chlorides, and sulphates, which are wholly or partially given up to most solutions.

2. A filter stand with three or four rings, a test-tube rack, a pair of forceps, a piece of platinum wire, a platinum foil an inch square, a common blowpipe, a pocket lens, a few rubber corks, and one or two feet of rubber tubing, are all the apparatus absolutely necessary to be used in making most qualitative analyses.

ACCESSORY APPARATUS—NOT ESSENTIAL.

If the student can spare the money, the following apparatus will be of great service.

FIG. 3.

FIG. 4.

FIG. 5.

FIG. 2.

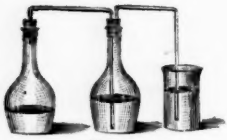


FIG. 9.

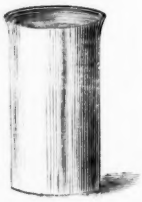


FIG. 6.

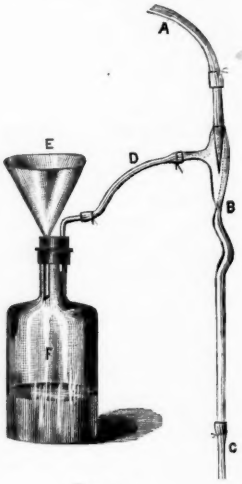


FIG. 10.

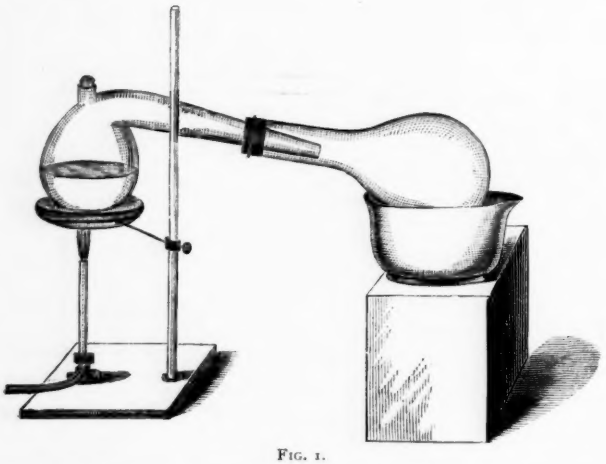


FIG. 1.

FIG. 7. FIG. 8.

1. *A good microscope*, for examination of powdered drugs, spices, etc., for adulterations. One which magnifies from 100 to 125 diameires, will answer in many cases, while a power of 375 to 500 is sufficient for all analytical work. The cost of good instruments will vary from $30 to $100, according to make, style, finish, power, patent adjustments, etc.

2. *A chemical balance.* These may be bought for $25 to about $100 each, the latter being for fine scales sensitive to .1 milligram (.0015 grain). The best American scales leave little to be desired.

3. *Burettes.* They should have a capacity of 50 cc. and be graduated to $\frac{1}{10}$ cc. Mohr's burettes, with a rubber tube and pinch-cock below, will answer for many purposes, a glass-stoppered one for all, while those through which a glass rod runs from top to bottom are clumsy and usually inaccurate. Every cubic centimetre of pure water measured from a burette should weigh (at 15.6° C. or 60° F.) one gram (15.43 grains).

4. *A Bunsen's filter pump* saves much time in washing precipitates. Where a good "head" of water can be had, its use is practicable. Fig. 10 shows the construction and method of using this pump. The rubber tube *a* brings a rapid stream of water which passes through the constricted portion of the tube at *b* and passes out through the waste-pipe at *c*. A partial vacuum is produced in the tube *d*, and in the receiving flask *f*. To the funnel *e* is fitted a cone of parchment paper folded exactly like a plain filter, and through the bottom of the cone a small hole is pierced, to allow the passage of the filtrate. If no cone were used, the filter paper would be torn by the pressure from above. A filter paper is carefully fitted inside the cone, and the adjustment is completed. The best size for most uses has a diameter of $\frac{1}{4}$ to $\frac{3}{8}$ inch, and may be obtained for 75 cents from most dealers in chemical glassware. The student can find directions for constructing his own filter pump in NEW REM. for April, 1877, p. 101, or May, 1877, p. 132.

5. An accurate thermometer, either Centigrade or Fahrenheit. If the thermometer is Centigrade, the mercury should stand at zero in melting ice, and at 100° in boiling water; if it is Fahrenheit, melting ice will show 32° above zero, and boiling water 212°.

Fahrenheit degrees may be changed to Centigrade degrees by substituting in the following formula:

$$C^\circ = \frac{(F^\circ - 32^\circ) \times 5}{9}, \text{ and conversely,}$$

$$F^\circ = \frac{C^\circ \times 9}{5} + 32^\circ.$$

VI. *Pure reagents.*—Most of them can be bought as dry salts of dealers, and afterwards dissolved in the proper amount of pure water, according to directions given in Fresenius' Qualitative Analysis, or Douglas and Prescott's Qualitative Analysis. The following is the usual laboratory outfit.

Sulphuric, hydrochloric, nitric, and acetic acids; potassium hydrate, carbonate, iodide, sulphocyanide, ferrocyanide, ferricyanide, acid chromate, sulphate, permanganate; ammonium hydrate, chloride, carbonate, oxalate, sulphide; sodium phosphate; barium chloride; calcium hydrate, chloride, sulphate; magnesium sulphate; ferrous sulphate; ferric chloride; silver nitrate; mercuric chloride; lead acetate, alcohol. The reagent bottles should be glass-stoppered, and accurately labelled. A very neat bottle, with the name and symbol blown in the glass, is sold by dealers in chemical glassware.

VII. *Books.*—Probably the book most generally useful is "Attfield's Chemistry: General, Medical, and Pharmaceutical," 7th American edition. For inorganic analysis "Douglas and Prescott's Qualitative Analysis," 2d edition; this is in the new nomenclature. "Fresenius' Qualitative Analysis" is good, but is in the old nomenclature.

For organic analysis, "Prescott's Proximate Organic Analysis" is the best. For reference, all the best textbooks on chemistry and pharmacy, reports of chemical and pharmaceutical societies, NEW REMEDIES, and other journals, are often of great value.

It is hoped that many more students and druggists may compete for the prize each month during the coming year. Any inquiries relating to this work will be cheerfully answered, if letters are sent to the Editor.

The July sample is organic and pharmacopœial.

THE following are the prices of the articles above mentioned, as given by a leading New York establishment:

Essential Apparatus.—1 glass retort, 30c.; 1 glass receiver, 25c.; 1 Bunsen's burner, 75c.; 6 feet of India rubber tubing, 60c.; 1 conical chimney of sheet iron for kerosene lamp,——; 1 water bath, with rings of various sizes, $1.50; 1 sand bath, 6 in., 10; 1 kerosene oil-stove, $1.65; 1 alcohol lamp (4 oz.), 45c.; 12 test tubes, 3 to 4 in., 30c.; 6 test tubes, 6 to 8 in., 25c.; 2 small Berlin ware evaporating dishes, 20c. each; 6, 2 to 4 oz. beakers, tall, 65c.; 6, 2 to 4 oz. beakers, short, 75c.; 3 small funnels with beveled nozzles, 1½ to 3 in. diam. 40c.; 1 wash bottle (1 pint), flexible tube. 60c.; 2 flat bottomed flasks, 4 and 6 oz., 35c.; India rubber corks, 30c. per oz.; glass tubing, 50c. per lb.; stirring rods, 60c. per lb.; Muncktell filter paper, per quire, $1.50; 1 filter stand with three rings, 85c.; 1 test tube rack, 45c.; platinum wire, 2½c. per gram; 1 piece platinum foil, 1x1 in., 2½c. per gram; Iblowpipe, 25c.; 1 pocket lens, 65c.; 2 ft. small rubber tubing, 16c.

Accessory, but not Essential Apparatus.—1 microscope, $30 to $100; 1 chemical balance, $25 to $100; 1 Mohr's burette, with pinchcock, $1.75; 1 glass-stoppered burette, $2.50; 1 Bunsen's filter pump (glass), 75c.; 1 sheet of parchment paper, 10c.; 1 thermometer, Centigrade or Fahrenheit, $1; Reagent bottles, with names moulded or etched in the glass, $2.50 per doz. or $6 for 40.

Books.—Attfield's Chemistry, 12mo, pp. 668, cloth, $2.75; Douglas & Prescott's Qualitative Analysis, 8vo, pp. 254, cloth, $3.50; Fresenius' Qualitative Analysis (the American edition gives the new chemical notation), 8vo, pp. 438, cloth, $3.50; Prescott's Proximate Organic Analysis, pp. 192, 12mo, cloth, $1.75.

NOTES, QUERIES AND ANSWERS.

[*Under this heading we shall, to the best of our ability, endeavor to answer such questions addressed to us as come within the scope of this journal, provided they are accompanied by the name and address of the writer. Answers to queries received after the 5th of the month will lie over until the next issue.*]

No. 343.—**Lallemand's Gout Specific.**—A Western correspondent sends us the following formula for this preparation, which is said to be made in St. Louis, Mo.:

Extract. colchici acet.,	
" opii aquos.	āā gr. xv.
Potass. iodidi	ʒ iv.
" acetat	ʒ ij.
Aquæ destill.	fl. ℥ iiiss.
Vini albi	fl. ʒ iv.

"Twenty drops three times a day."

No. 380.—**Physic's Bitter Wine of Iron.**

This is prepared after the following formula: Take of iron filings 3 oz.; ginger, bruised; gentian, bruised, each 1 oz.; orange peel, bruised, ½ oz.; strong old cider, 1 pint. Macerate in a bottle loosely corked, for 2 weeks or longer; then express and filter for use. A reaction occurs between the iron filings and the acid of the cider, resulting in the formation of malate, and perhaps some acetate of protoxide of iron, with the evolution of hydrogen gas, which swells up the ingredients, and requires that the maceration should be conducted in a bottle of twice the capacity of the ingredients. This preparation has a dark, almost black color, very bitter aromatic taste, and is a good, though not an elegant chalybeate in the dose of a teaspoonful.

No. 381—**Mynsicht's Elixir of Vitriol.**

The formula for this is given below. It is now replaced to advantage by the more simplified Acidum Sulphuricum Aromaticum of the U. S. Pharm.

This elixir is also known by the name of *acid aromatic tincture.* Take cinnamon, 2 oz.; lesser cardamoms, cloves, galanga root, and ginger, of each ½ oz.; sulphuric acid (spec. gr. 1.845), 1 drachm; rectified spirit (spec. gr. .897 to .900), 2 pounds. Mix the acid and spirit, and pour them on the other ingredients, reduced to a fine powder, macerate for 8 days in a close vessel, with frequent agitation, then press it out, and strain. It should be of a brownish-red color. (Prussian Ph.)

Another formula directs as follows: Take sweet flag root and galanga root, of each 1 oz.; ginger, cinnamon, cloves, and nutmeg, of each 3 drachms; lemon peel, 4 drachms; white sugar, 3 oz.; proof spirit, 2 pounds; dilute sulphuric acid, 3 oz. Macerate for 6 days; then press and filter, so as to make 27 oz. (Austrian Ph.)

No. 382.—**Hamburg Bitters.**

The following is said to be the formula:

Grind to a coarse powder 2 oz. agaric, 5 oz. cinnamon, 4 oz. cassia buds, ½ oz. grains of paradise, 3 oz. quassia wood, ¾ oz. cardamom seeds, 3 oz. gentian root, 4 oz. orange apples dried, 1½ oz. orange peel; macerate with 4¼ gals. 95 per cent alcohol, mixed with 5¾ gals. water; add 2¾ oz. acetic ether. Color, brown.

No. 383.—**Fumigating Pastils.**

Piesse gives the following formula:

Dissolve ¾ oz. nitre in ½ pint rose-water; mix this with ½ pound willow charcoal, and dry it thoroughly in a warm place. When the nitrated charcoal is perfectly dry, pour upon it a mixture of ½ oz. each of the oils of thyme, caraway, rose, lavender, cloves, and santal; then stir in 6 oz. benzoic acid; mix thoroughly through a sieve, then beat in a mortar with sufficient mucilage to bind together. Make into pastils and dry.

No. 384.—**India Rubber Varnish for Leather.**

Among a number of formulæ, that of Champagnat is said to furnish the best product :

In a wide-mouthed bottle (glass) digest 2 oz. india-rubber, in fine shavings, with 1 pound oil of turpentine, during 2 days without shaking, then stir up with a wooden spatula. Add another pound of oil of turpentine, and digest, with frequent agitation, until all is dissolved. Then mix 1½ pounds of this solution with 2 pounds of very white copal oil-varnish, and 1½ pounds well boiled linseed oil ; shake and digest in a sand bath until they have united in a good varnish for morocco leather.

No. 385.—**Brown-Sequard's "Neuralgic" Pills.** (W. T., M.D., Kioto, Japan).

This is the formula :

Ext. hyoscyami,		
" conii	āā	gr. 40
" ignatiæ amar.,		
" opii	āā	" 30
" aconiti		" 7½
" cannab. ind		" 15
" stramonii		" 12
" belladonna		" 10

Mix. Make sixty pills.

No. 386.—**Gross' Neuralgia Pills** (W. T., M.D., Kioto, Japan).

Quiniæ sulphat	ʒ ij.
Morphiæ sulphat	gr. iij.
Strychniæ	gr. ij.
Acid. arsenios	gr. iij.
Ext. aconiti	ʒ ss.

Mix. Make sixty pills.

No. 387.—**Decoctum Frangulæ Compositum** (Arth. W. M., Ithaca, N. Y.).

Bark of Rhamnus Frangula	12 parts.
Rhubarb	3 "
Hops	1 part.
Cardamom seeds	1 "
Water	150 parts.

The buckthorn bark is boiled in the water for half an hour ; then the rhubarb (in coarse powder), hops, and cardamom seeds are added ; the whole is well covered until nearly cool ; finally strained, and water enough passed through the mass to make 144 parts of decoction.

No. 388.—**Rhodanate of Potassium** (S. B. Th., Passaic, N. J.).

This is a name of sulphocyanate or sulphocyanide of potassium. The sulphocyanides strike a fine blood-red color with ferric salts. Berzelius, who first correctly recognized the character of hydrosulphocyanic acid, applied to it the name Rhodan-wasserstoffsäure. The name was meant to be chosen from a Greek word, which means "rose-colored ;" but then it should have been called "rhodin-wasserstoffsäure," not "rhodan."—(ῥοδινός rhodinos, means *rose-red* ; ῥόδανος, rhodanos, means "slender, frail [as a reed]."

No. 389.—**Chinolin** (Dr. J. F. H.)

Chinoidin is *one* thing ; chinolin is *another*, by a considerable difference. If you will read our article on the Cinchona Alkaloids, published in the April and May numbers, you will find enough information about *chinoidine*, which is evidently the substance you intended to speak about in your letter.

Chinolin is an artificial product obtained by distilling quinia, cinchonia, strychnia, and various other alkaloids, with potassic hydrate. It is a colorless liquid, of a strong aromatic odor, resembling that of bitter almonds, has a hot, bitter taste ; is with difficulty soluble in cold, somewhat more soluble in hot water, easily soluble in alcohol, and turns brown on exposure to air. Its formula is C_9H_7N, being isomeric with leucolin, which is obtained from coal-tar. It has never yet been used medicinally, so far as we know.

No. 390.—**Preparation of Cinnabar** (R. A., Sacramento, Cal.).

According to the patent of S. Grawitz [this is originally an English patent], oxide of mercury (red precipitate) is dissolved in a cold watery solution of a hyposulphite, with exclusion of daylight ; a little ammonium chloride is then added, and the mixture warmed until the red sulphide of mercury or cinnabar is precipitated. The precipitate is washed first with water, then with soda, then with dilute nitric acid, and finally again with water.

No. 391.—**Cole's Laxative Pills** (B. McE., Onondaga, N. Y.

These consist of

Ext. coloc. co., pulv	gr. iij.
Calomel	gr. i.
Res. podophylli	gr. 1/10.

No. 392.—**Mucilage of Flaxseed** (J. D. M. C., Jacksboro, Texas).—

The simplest way to make this is to follow the formula of the United States Pharmacopœia, under Infusum Lini compositum, merely leaving out the licorice root and perhaps increasing the amount of flaxseed sufficiently to answer the special purpose it is intended for. All you need do is to pour boiling water on the flaxseed, allow to stand for a couple of hours in a covered vessel, and to strain.

No. 393.—**Spilsbury's Antiscorbutic Drops.**

These are prepared after the following formula :

Corrosive sublimate	5 parts.
Golden sulphuret of antimony	3 "
Gentian	5 "
Orange peel	5 "
Red saunders	5 "
Dilute alcohol	500 "

—*Hager.*

No. 394.—**Tinctura Ferri Acetatis** (Rademacher's) (B. J. W., M.D.).

Crystallized sulphate of iron	86.25 parts.
Acetate of lead	90 "

Powder these well together in an iron mortar, then add to it a mixture of

Distilled water	180 parts
Best wine vinegar	360 "

Transfer the whole to an iron boiler, heat to boiling, allow to cool and then add

Alcohol (90 per cent)	300 parts,

Transfer the mixture to a bottle, which is to be well closed and to be set aside for a few months, being meanwhile repeatedly shaken. Whenever the liquid has acquired a ruby-red color, it is to be filtered. This tincture has the flavor and odor of Malaga wine.

No. 395,—**Chrysarobin** (J. G. J., Brooklyn). This is the name which J. Ashburton Thompson has chosen to designate what is otherwise known as Goa powder. If you will read the articles in NEW REMEDIES, 1876, pages 105, 135, 356 ; 1877, pages 81, 16. 176, 203, 166 (*chrysarobin*), 113, etc., etc., you will find a complete report as to the nature and properties of the substance. Goa powder is gradually being replaced by its active constituent, namely, chrysophanic acid, and the question is just now under discussion, whether chrysophanic acid from rhubarb and from Goa powder are identical or not.

Rose Culture in Bulgaria.—According to information recently received by us from Mr. C. Sax in Adrianople, the previously reported revival of rose-culture at the southern slope of the Balkans, about the villages of Eski Saghra, Yeni Saghra, Kasanlik, Shipka, Kalofer, and Karlowa, has already assumed promising aspects. There is no doubt that the harvest this year will be but little inferior to that of former years, and that the more liberal protection which is expected from the new government to be established will still further foster the enterprise.

Julius Robert von Mayer, the discoverer of the mechanical equivalent of heat, which is justly regarded as one of the most important scientific acquisitions of this century, died on March 20th, in his native town, Heilbronn (Wurtemberg), aged 63 years.

NOVELTIES.

PERSONS *having* NEW *inventions, processes, and novelties which they may wish to bring to the notice of readers of* NEW REMEDIES, *can do so through this column by forwarding (when it is possible to do so) a sample to the* EDITOR, *accompanied with a suitable illustration, when one is needed to give an adequate idea of the thing described. If it is desired, cuts will be made at the expense of the person furnishing the sample.*

It will be understood that such notices are to be gratuitous; based solely on the merits of the articles submitted, and published as matters of general interest to the readers of the Journal.

All samples and communications must be received before the fifth of the month.

Dennison's Absorbent Cotton.

DENTISTS, surgeons, and those who make a specialty of obstetric, uterine, aural, throat, and skin affections, require a variety of cotton, absolutely free from impurity, which can absorb moisture with greater readiness than the commercial sort is capable of doing. On page 117 of our last volume, we gave a formula for preparing such a cotton, but the trouble which accompanies the process, although it is simple, will prevent it being carried out on any other than a large scale. Dentists have, until recently, used the so-called jewelers' cotton, and it is not long since absorbent cotton has been especially prepared for these other purposes. The demand has, however, now become considerable, and a number of persons have undertaken its preparation. Some of these we have already noticed, and we desire now to mention the Absorbent Cotton of Dennison & Co., of 19 Milk St., Boston.

We have been using a sample sent to us some time since, and find it capable of answering everything reasonably demanded of it. Wrapped about the end of a cotton holder, secretions can be removed with ease from catarrhal and ulcerated surfaces, and local applications of medicated solutions can be applied with ease and efficiency. It is to be preferred to a camel's hair brush, and is equally efficient and much cheaper than sponge. It is furnished in packages containing $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{4}$, $\frac{1}{2}$ lb., the former being a convenient size for apothecaries' sales and for carrying in an instrument bag.

Hunt & Co.'s Pleated Paper Bottle Caps.

AN advertisement of these caps has appeared for some time past in our pages, and a number of letters have been received in relation to them, from persons who failed to find them for sale in this country.

The manufacturers have now made the arrangements necessary for supplying them here, and have sent us a great variety of samples, embracing those of different colors and patterns; others having the name of the pharmacist printed on their centres, and still others with the words "Poison," "For External Use," etc., printed in a conspicuous manner. The accuracy of the pleating, beauty of coloring, handsome form, and their generally tidy appearance, together with their low price, will not fail to recommend them to every pharmacist who takes an interest in having his work appear well. Those who put caps on to their bottles at all, will find the use of these a great saving of time and trouble, and the result will be far superior to anything they can turn out by hand.

Vaseline Toilet Soap.

COLGATE & CO., who are the agents for the Cheseborough Manufacturing Co.'s Vaseline preparations, have just offered to the trade a toilet soap in which vaseline, instead of glycerin, is used as an emollient. The trouble with glycerin as an application for the skin is its great affinity for moisture, and the tendency to produce a harsh, dry surface by its continued use. Vaseline, however, a combination of paraffine of different degrees of density, has no affinity for moisture whatever, and yet its power for penetrating and softening animal tissues is well known. The proprietors of some Turkish baths have taken advantage of this fact to introduce the feature of anointing the skin with one of these compounds, after the usual manipulations of the bath are completed, and the result is said to be very favorable to the complexion and to the production of a soft supple skin. In this new soap, vaseline is mechanically combined with the soap, and as it is not saponifiable, it seems to replace in some degree the greasy matter removed by the soap from the surface of the skin. Both the Vaseline Toilet Soap and the Vaseline Tar Soap which we have tried give a smooth, creamy lather, and leave a soft skin after they have been used. The medicinal virtues of the latter soap are by no means impaired, but it is probable that they are rather favored by the combination with vaseline.

Chinoidine Sulphate and Citrate.

BY some oversight, a short article on *chinoidine citrate*, made by Mr. A. Früh, of Greenville, N. J., published in our last volume, page 182, was somewhat confused by the use of the word sulphate, instead of citrate, in the heading, as well as in the text of the article. This mistake caused various physicians to apply to Mr. Früh for *sulphate of chinoidine*. In order to supply the unexpected demand thus created, Mr. F. Früh has prepared this salt, and finds it now even preferable to the citrate, as it can be made to contain 95 per cent of chinoidine, while it has the same properties as to solubility and efficiency. Mr. Früh states that 75 per cent of the precipitate caused by decomposing this sulphate of chinoidine with ammonia is soluble with ether, and therefore belongs to the quinia class of alkaloids. Reports of physicians speak very favorably about it, and where the expense of a febrifuge is an obstacle to the employment of the dearer alkaloids, chinoidine or its preparations will, no doubt, be found useful substitutes.

"Perpetual Safety Stopper."

THIS stopper, patented last year, is just being introduced to the market by Theo. Ricksecker, 146 and 148 William St., New York. It consists of a cap, as shown in the sectional illustration, composed of brown or black soft rubber, and can be made to embrace the neck and lips of a bottle in the manner represented in the larger figure. No cork is needed, and the security of the contents of the bottle is beyond question. The circular which accompanies the sample sent to us mentions the facts that it dispenses with the need for a cork screw and requires no tying over to secure it. Its value in retaining the contents of bottles holding oils and chemicals is

obvious, and another use to which it may be put occurs to us at once, viz., the closing of the bottles which physicians so often carry to hold remedies for local application to the throat, uterus, etc. The tendency of glass stoppers to either work loose or stick ; the liability of cork stoppers to destruction by acids and strong alkaline solutions, and to fall out with jarring, causes almost constant trouble, and occasionally leads to the destruction of the instrument-bag and its contents.

In the case of solutions of iodine, this stopper alone would not answer, since rubber is attacked by this substance and rendered brittle ; but, by covering one or two folds of paraffine paper over the lip of the bottle before the stopper is adjusted, this objection would be avoided.

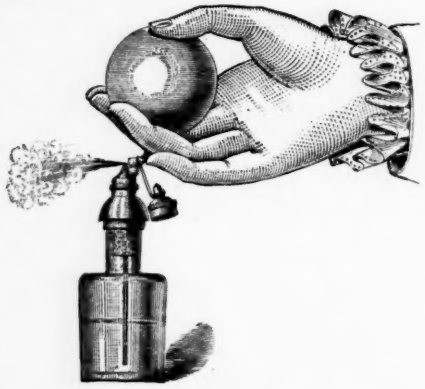
As yet the only sizes in the market are adapted for 2 oz., 3 oz., and 4 oz. bottles, but larger sizes are promised.

Murray's Charcoal Tablets.

THE value of pure charcoal as a remedy in certain forms of dyspepsia requires no indorsement, but the disagreeable process of taking a spoonful of gritty powder, stirred up in water, has not favored its frequent use, and it has for this and other reasons been neglected. A. J. Ditman, of Broadway, cor. of Barclay St., has a preparation in which pure charcoal, made from young willow shoots and pulverized, is presented in neat tablets about ½ inch square. This form renders it easy to use the substance for any medicinal purpose. A box containing about a handful of tablets retails for 25c.

New Era Coffee.

THIS is really wheat from which the oily matter has been extracted, and which has been parched or browned in a way to resemble coffee. When boiled a sufficient length of time with water—say thirty minutes—a decoction closely resembling coffee which has lost its aroma results, and with the addition of milk and sugar, it forms a beverage which is quite agreeable in flavor, and rather more nutritive, we should judge, than coffee itself. Although it has none of the valuable properties possessed by coffee, so, too, it possesses none of its disadvantages, and, therefore, is the better fitted as a warm drink for some invalids, most children, and a large number of persons who find the use of coffee injurious, and who wish some change from cocoa. Indeed, as a beverage, we like it rather better than we do cocoa, and have no hesitation in recommending its use instead. Its price is moderate (18c. per lb.), and it can be had in the shape of one-pound packages, of S. S. Putnam, General Manager, 132 State St., Boston, Mass.



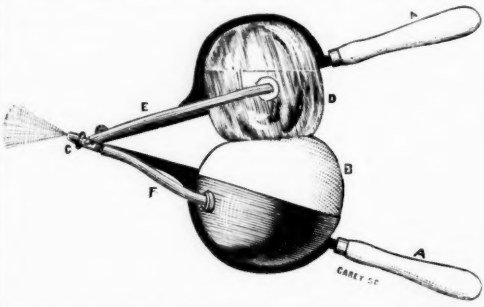
"De Henri's Bouquet Atomizer."

THE number of forms in which atomizers have been put into the market would appear to be already sufficiently various; but McDonald & Sutton, of 24 Barclay St., have still another claimant for popular favor in the shape here represented.

An ounce perfume bottle of any kind can be used, although one accompanies the atomizer. A screw-cap serves to confine the contents of the bottle when travelling, or while being kept in stock, and the atomizer can, at any time, be fastened in place of it. The cost ($3.25 per dozen) is so low that it is an inducement to druggists to furnish them with their finer brands of perfumery.

Holmes' Mammoth Atomizer.

QUITE another affair is this mammoth atomizer of Thos. J. Holmes, of Boston, adapted for applying liquid insecticides, for spraying plants, and for a variety of purposes to which a large and powerful volume of spray may be used, such as the disinfection of rooms, etc. The handles, A A, being forcibly compressed, the vessel D, which, in the one



sent to us for trial, is made of glass, and capable of holding about half a pint, is forced against the india-rubber ball B, causing a strong blast of air to be driven through the tube F, and out at the nozzle C. E is a tube, also of india-rubber, through which the fluid is drawn from the reservoir D. The instrument is very substantially made, reasonable in price ($2.50), and throws a spray to a distance of ten or more feet—a perfect rain storm in fact.

Lyon's Dental Cream.

THE manufacturer claims this as an entirely new saponaceous compound for use as a dentifrice, and guarantees it to be free from injurious substances. There is little question that the employment of an alkaline solution as a mouth-wash is beneficial. Salter * says : " Buccal mucus is very commonly acid, and I find that the oozy secretion around the necks of teeth nearly always turns litmus-paper pink. It is by no means uncommon to find the saliva giving an acid reaction, even temporarily, in healthy people, and I do not think that this has been sufficiently dwelt upon as a cause of decay."

If this is true, a nicely-flavored soap, such as is here presented, will be useful, not only in cleansing away decaying food and mucus, but also in neutralizing any acidity that may exist.† The cut shows the form of the package, and the metallic spoon affixed to the cork for the purpose of placing the paste on the brush.

* Dental Pathology and Surgery by S. James A. Salter, M.D., F.R.S. New York. W. Wood & Co., 1875, p. 80.

† Even feeble acids have the power of removing the lime salt from teeth, and rendering them soft and readily attacked by the Leptothrix, a fungous growth, which pervades carious dentine, and grows at its expense.

Accurate Weights for Apothecaries.

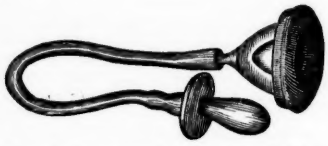
MESSRS. BECKER & SONS, of New York, have just placed upon the market sets of grain and drachm weights, as well as sets of decimal weights, which, for accuracy and convenience of handling, leave nothing to be desired. The grain weights are made of sheet brass, square, with turned-up rim for taking hold of them with greater ease, and are marked with as many G's as they contain grains. The ½ grain and ¼ grain weights are made of aluminium. The drachm weights are round coins, plainly marked without superflous ornamentation. The smaller decimal weights are made of sheet-brass, round, with a turned-up lip, and plainly stamped with the number of milligrammes they represent.

From and after August 1st, 1878, the College of Pharmacy will keep on hand, for the supply of any druggist or physician who desires perfectly correct weights, sets of the above, carefully compared with the standard weights in possession of the College, and stamped with their copyrighted mark. Further announcement as to price and other details will be made in our next issue.

Messrs. Becker & Sons have put the price of a set of grain and drachm weights, from 2 drachms to ¼ grain, at 75 cents.

A New P. P. Syringe.

MR. P. J. MCELROY, of Cambridge, Mass., a very well-known maker of glass syringes, has sent us one of recent construction, for which we have no illustration, but which merits description. In some varieties, the piston rod is passed through a cork which, being pushed into the upper end of the barrel, serves as a guide to the piston rod, and is intended to prevent the piston being accidentally withdrawn from the barrel, but this cork, is apt soon to become loose. In this instance, the end of the glass barrel has been contracted after the piston and rod were in place, until the opening around the rod is just large enough to give it freedom of motion, while preventing the withdrawal of the piston. To prevent the syringe being broken by the shoulder of the handle, or the upper end of the piston coming against this inverted edge of glass, two little "buffers," in the shape of india-rubber rings, have been made to encircle the rod, and the action of the syringe is thereby rendered noiseless and freed from the risk of breakage.



Geyer's Crescentine Nipple Shield.

WHY this is called "Crescentine" we do not understand, but it is very likely because "Centennial," "Eureka," "Great American," and such other titles have become somewhat hackneyed, and "Crescentine" is quite as descriptive as the best of them. Whatever it may be called, this nipple shield has both good and bad features:—First, an elastic inverted nipple is stretched from the edge of a glass vessel in such manner that it has a certain amount of play. Its elasticity, when the glass cup is exhausted of air by suction, will prevent the breast being drawn into the cup, so as to cause enough pressure to interfere with the flow of milk in the ducts—that is, if the breast nipple is not too flat, but is sufficiently prominent to fill the greater part of the india-rubber nipple. If, however, the mother's nipple *is* quite small and flat, the pressure which it will be necessary to make in order to prevent air entering between the shield and the surface of the breast will be sufficient to interrupt the flow of milk through the sinuses of the gland, and then this will be no better than many other nipple shields. In any case, however, this is likely to reduce to a minimum the pain which is often caused the mother. Now, the bad feature is the india-rubber tube. It is *practically* impossible to keep such a tube free from sour milk, and the effect of introducing such decomposing milk, into the stomach of an infant, mixed with its usual meal, is to start a process of decomposition in the latter portion, and lay the foundation for derangement of digestion which may demand all the skill of a physician to arrest.

In order that those who buy this nipple shield may gain all of its advantages (and they are considerable), and avoid its objectionable features, we would advise that they immediately take off the long tube and the mouth-guard, and slip the india-rubber mouth-piece into the tip of the funnel-shaped glass, discarding the tube and mouth-guard altogether. Now, when the baby has finished sucking, the inverted nipple and the mouth-piece can be removed from the glass; all three can be washed and left in a cup of water until again required, and the possibility of retainings our milk in inaccessible places is abolished.

Judging by the practices of makers of nursing bottles and breast-pumps, if they had to direct the reconstruction of the human mammary gland and nipple, they would not rest content without extending the latter into the form of a hose-pipe.

It is said that in Africa there are women with breasts so pendulous that, while carrying their babies on their backs, they can nurse them by throwing a breast up over the shoulder. In view of the saving of trouble which such an anatomical development would permit, a "hose-pipe nipple" might be quite convenient, if one might be certain that air could not gain entrance and sour the milk.

Insulating Castors.

IT may be remembered that some years ago it was proposed by somebody to cure rheumatism, or prevent the disease in those who are liable to it, by insulating the bed on which the person was accustomed to sleep; the theory being that the disease was caused by the escape of animal magnetism or electricity, and that, this being prevented, the patient would get well or would remain well, as the case might be. We have an impression that there were several eminent clergymen who were ready to vouch for the inestimable value which this discovery had been to them; but we do not remember that any positive statement was made that they were not accustomed also to carry a buckeye in their pantaloons pocket—which is important, since, in case they *did* so carry a buckeye, their immunity from rheumatism might as likely have been owing to that fact as to the presence of the glass tumblers under their bed-legs.

Another party, also of a magnetic persuasion, was convinced that the human body, like the magnetic needle, possessed its north and its south pole, and that, like the needle, it also would remain in a state of constant unrest, unless the head pointed due north, and the toes in the opposite direction. Behold, now, the utility as well as the beauty of Aldgate's Patent Glass Castor. By its usemaywe not only cure our rheumatisms (and avoid the dangers of lightning stroke) but the ease with which our bedsteads, when provided with these castors, can be moved so as to adjust them to any point of the compass, will permit each person to make observations in regard to his individual magnetic meridian, and indirectly to benefit science.

If any one doubts all this, his duty is plainly indicated. He should write at once to J. D. Buckhout, Business Manager, 96 John St., N. Y., order a set, and prove the truth or falsity of the theory. If the remedy doesn't cure his rheumatism, he can console himself with a set of castors that revolve in any direction with equal facility, and which are so handsome that his wife will have to be careful in showing them, or risk the peace of mind of her less fortunate female friends. They are made in all sizes, from those adopted for piano-fortes, to small ones for chair-legs and hassocks.

PRESCRIPTIONS AND FORMULÆ.

Formulæ of Secret Medicines.

(*Continued from page* 158.)

Dermasot (Apotheker Bertschinger, Baden, Switzerland).—For profuse perspiration of the feet. Consists of acetate of alumina, 7.5 grammes; distilled water, 120 grammes; butyric ether, 2 drops; rosanilin to color it slightly.—*Weber.*

Douglas' Disinfecting Powder.—A mixture of sulphite of calcium, chalk, and carbolic acid, or of sulphite and carbonate of lime.

Deutsche Siegestropfen—German Triumphal Drops (Schmidt).—480 grammes of a brown fluid with an agreeably sweet spirituous and aromatic taste, containing in a hundred parts five parts of the portion soluble in weak spirit of cloves and orange peel, 29 parts sugar, 36 parts alcohol, and 30 parts water.—*Wittstein.*

Diamantkitt—Diamond Cement.—50 parts graphite, 15 parts litharge, 10 parts milk of lime, 5 parts slaked lime, intimately mixed with enough linseed oil to make a firm mass.—*Hager.*

Diamanttropfen—Diamond Drops (Dr. Allinhead).—A combination of the juices of mysterious herbs of tropical climes, which has the power to make all men transparent! 5 drops sell at £4!!

Dictamia.—A strengthening and restorative preparation. Arrow root, 6 parts; meal of triticum monococcum, 6 parts; chocolate, 4 parts; vanilla, ¼ part (Richter); Sugar, 217 parts; bran extract, 92 parts; starch, 125 parts; Caracas and Maragnan cacao, 30 parts; vanilla, 1 part.—*Chevallier.*

Clark's Distilled Restorative for the Hair (C. G. Clark & Co.).—For promoting the growth strengthening, and dyeing the hair. This preparation contains .023 per cent of lead in acetic solution.—*Chandler.*

Dog-balls (A. H. Böldt, Genf).—Hard pills, weighing .15 grammes, of irregular shape and unequal size, composed of aloes with ⅓ of gentian, and strewed with a brown powder containing licorice root.—*Hager.*

"*Dragées au Lactate de Fer*" (Gélis and Conté).—100 grammes of lactate of iron made into 2,000 very small pills with powder and mucilage of marshmallow, and coated with oleosaccharate of anise.—*Reveil.*

Dragées de Copahu de Fortin.—30 grammes balsam of copaiba made into 72 dragées, with 1.2 grammes calcined magnesia, and coated first with gum-arabic and then with sugar.—*Reveil.*

Dragées de Cubèbe au Copahu—Cubébines (Labelonye).—2 parts balsam of copaiba, 2 parts extract of cubebs, 1 part yolk of egg, with sufficient licorice powder to make a mass, which is divided into oblong pills, each weighing 7 decigrammes. These are dried and coated with white or raw sugar.—*Hager.*

Dragées de Pougues (Garnier).—Chloride of calcium, 50 parts; chloride of magnesium, 50 parts; chloride of iron, 10 parts; dissolved in water, and precipitated with sodium carbonate. The precipitate is washed, pressed, and mixed with 100 parts bicarbonate of soda. Of this mixture 25 parts are made into a mass with 475 parts of a paste of sugar, peppermint, oil, and mucilage. The mass is then divided into dragées weighing 5 decigrammes, which are coated with gum and sugar.—*Reveil.*

Driffield Oils.—For the prevention of gangrene and for healing incised and other wounds, bruises, sprains, swellings, and external inflammations. A dusky brownish-green clear oil, consisting of olive oil, digested with wormwood, savin, and arnica, and afterwards perfumed with a mixture of oils of rosemary, thyme, and juniper.—*Hager.*

Dünger—Manure (Routin, Paris).—A bluish-green fluid, containing about 190 grammes of solid matter per litre. The residue consists of sulphates of copper, iron, magnesia, and soda, sal ammoniac, nitrates of potash and soda, common salt, and none or a mere trace of phosphoric acid. The blue deposit which separates on standing is ultramarine.—*Keller, Karmrodt, and Nessler.*

Dynamon (Dr. Momma, Düsseldorf).—A galvano-electric curative apparatus. A small capsule of horn, containin a disc secured to a pedicel. On the disc, a number of sharp needles are fixed. By gently moving the apparatus, and afterwards withdrawing it, artificial pores are produced in the skin by punctures which are not very painful. These are then to be rubbed with a certain oil, probably containing cantharides.—*Wittstein.*

Eau Athénienne (Hte. Bourgeois, Paris).—Pour nettoyer la tête et enlever les pellicules—for cleaning the head and removing scurf. An alcoholic solution of potash-soap, with some solution of potash and aromatic oil.—*Dr. F. Goppelsröder.*

Eau Berger for Dyeing the Hair.—Two fluids for consecutive application. No. 1 is a solution of 1.3 grammes sulphate of copper, .25 grammes nitrate of nickel, 30 grammes distilled water, 4 grammes ammonia. No. 2 is a solution of calcium sulphide, made by passing sulphuretted hydrogen into milk of lime until it ceases to be absorbed, and then filtering from the excess of lime.—*W. Engelhardt.*

Eau Capillaire Progressive pour rétablir la couleur naturelle des cheveux et de la barbe. Formule rationelle, succès garanti—Progressive hairwash for restoring the natural color of the hair and beard. Formula rational, success guaranteed (Dr. R. Brimmeyer, chimie-pharmacien, Echternach, Luxembourg).—4 grammes hyposulphite of lead and soda, with an insignificant admixture of bismuth oxide and 100 grammes rose water.—*Schädler.*

Eau d'Afrique, for dyeing the hair black.—Three fluids to be consecutively applied. No. 1 is a solution of three parts nitrate of silver in 100 parts water. No. 2 is a solution of 8 parts sodium sulphide in 100 parts water. No. 3 is a solution of nitrate of silver like No. 1, but perfumed.—*Reveil.*

Eau d'Atirona.—An elegant fluid cosmetic soap, by the use of which all imperfections of the skin will be easily and painlessly removed. It consists of 25 grammes of a spirituous tincture of cinnamon and cloves, 4 grammes soda soap, and a drop of peppermint oil.—*Wittstein.*

Eau de Bahama.—A black dye for the hair. It is a solution of sugar of lead perfumed with oil of anise, and containing flowers of sulphur in suspension.—*Reveil.*

Eau de Beauté—Eau de Paris sans Pareille, or *Eau de Princesses* (August Renard Paris); with a German title, "Rühmlichst bekanntes cosmetisches Wasser, genannt Prinzessen-Wasser." The well-known and renowned cosmetic, called Princesses' Water.—To experience the brilliant effects of this marvellous fluid, we need only, after washing, habitually pass a small sponge moistened with the fluid gently over the skin, and allow it to dry without rubbing. By so doing, our complexion will remain white, smooth, clear, and soft, even to extreme old age. Those, however, who are troubled with freckles, heat-spots, or any other eruption should use the water several times a day as directed. They need suffer no longer from any defect of the skin. "Princesses' Water," when shaken, is a milk-white fluid contained in an oval bottle with a long neck, which holds 125 grammes. On standing, it deposits a white precipitate. It is made from 2.5 grammes calomel, .45 gramme corrosive sublimate (so altered by the added perfume that the usual tests do not reveal it), and 122 grammes orange-flower water.

Eau de Botot.—A mouth wash. Tincture of cedar wood, 500 grammes; tincture of myrrh and tincture of rhatany, of each, 125 grammes; peppermint oil, 5 drops.—*Winkler.*

Eau de Capille (Kamprath & Schwartze).—A hair dye. A mixture of 16 grammes glycerin, 8 grammes hyposulphite of soda, 1 gramme sugar of lead (or an equivalent quantity of liq. plumbi subacet.), about 2 grammes precipitated sulphur, and 130 grammes water, perfumed with a small quantity of eau de Cologne.—*Hager.*

Dr. Chattami's Eau de Charbon (A. Ahnelt, Charlottenburg, the African traveller).—A prophylactic and specific

against syphilis. 150 grammes of a slightly red fluid, consisting of a watery solution of carbolic acid, colored with aniline and perfumed with 1 drop peppermint oil and 8 drops chloroform dissolved in 20 grammes spirit.—*Hager.*

Eau de Cythère.—A hair dye. A solution of 4 parts chloride of lead and 8 parts crystallized hyposulphite of soda in 88 parts distilled water.—*Hager.*

Eau de Fée—Fairy Water—A Natural Hair-wash (Lattke, Chemiker, Kiel).—Recommended as a preparation consisting solely of harmless vegetables. It consists mainly of a strong solution of nitrate of lead.—*Himly.*

Eau des Fées—Fairy Water.—A hair-wash. A solution of 1¼ parts lead sulphite in about 3 parts sodium hyposulphite, 7¾ parts glycerin, and 88 parts water. According to the directions for use, more than three bottles of 120 grammes of the Fairy Water should not be used before the hair has been treated with Eau de Poppée, and, to raise it to the highest possible degree of beauty, with Huile régénératrice d'Hygie.—*Hager.*

Eau de Hébé.—For freckles. To be applied with a small sponge in the evening and washed off in the morning. Lemons, cut small, digested in a closed flask with distilled vinegar, lavender vinegar, oil of lemon, and rosemary, and filtered.

Eau de Java Anticholérique is a solution of camphor and carbolic acid in spirit.—*Casselmann.*

Eau de la Floride.—A colorless fluid with a greenish-yellow deposit, consisting of sugar of lead, 50 parts; flowers of sulphur, 20 parts; distilled water, 1,000 parts. —*F. Eymael.*

Eau de Léchelle may be replaced by a filtered mixture of 200 parts aqua aromatica, 300 parts aqua dest., 10 parts acid carbol., 10 parts ol. thymi, 20 parts acid. tannic.

Eau de Lys de Lohse (Lohse; formerly—before the French war—Lohsé, Berlin).—A cosmetic, consisting of 2 grammes zinc oxide, 2 grammes prepared talc, 4 grammes glycerin, and 200 grammes rose-water.—*Schädler.*

Eau de Mont Blanc.—A hair dye. A solution of nitrate of silver.

Eau de Naples.—Neapolitan washing solution. A mixture of 12 parts borax, 100 parts distilled water, 50 parts rose-water, 1 part camphor, 4 parts tinct. benzoin. —*W. Hildwein.*

Eau Dentifrice de Mallard.—Star anise, common anise, cinnamon, cloves, of each, 8 parts; guaiacum wood, 10 parts; brown cinchona, 6 parts; rose leaves, 5 parts; nutmegs, 2 parts, are placed in a displacement apparatus and percolated with 3 parts cochineal, 12–15 parts water, 1,000 parts sp. vini, sp. gr. .860. The tincture is displaced with water and 1,000 parts are mixed with 7 parts of a mixture of peppermint oil, spirit of scurvy grass, and tinct. of benzoin, allowed to stand and filtered.

Eau Dentifrice des Cordillères.—An Indian recipe. 360 parts strong spirits, 330 parts water, 2½ parts extract of red or yellow cinchona, 1 part oil of cinnamon, 2 parts oil of cloves, 3 parts oil of anise, 3 parts oil of peppermint.—*Hager.*

Eau de Quinine—Glycerine Hair-wash, with Extract of Peruvian Bark (A. Heinrich, Leipzig).—For removing scurf and strengthening the hair. 2 grammes balsam of Peru, 6 grammes castor oil, 60 grammes rum, 35 grammes water, 5 grammes tincture of red cinchona.—*Hager.*

Eau de Vienne.—A hair-dye from Paris. Two fluids, one of which is a solution of nitrate of silver in ammoniacal water, and the other a solution of pyrogallic acid.

Eau du Docteur Sachs (prepared by Gilbert, perfumer, Berlin).—For promoting the growth of the hair, preventing its turning gray, for protecting the scalp from all injurious influences, and for preserving it in a state of purity and health. A solution of castor oil in spirit containing picrotoxin.—*Dr. C. Schacht.*

Eau Ecarlate—Scarlet Water (Bürdel).—For renovating red linen and woollen fabrics. Oxalium, 25 parts; soda, 16 parts; potash, 5 parts; water, colored with cochineal and slightly perfumed, 1,000 parts.—*Sauerwein.*

Eau Lajeune (A hair-dye and pretended invention of the Parisian perfumer, Lajeune, Boulevard Montmartre, 11).—An elegant pasteboard box, in which are three bottles of fluid and two bone-handled tooth-brushes. No. 1 contains a clear fluid, consisting of pyrogallic acid 1.5 grammes, .3 gramme coloring matter of alkanet, 17.5 grammes spirit of wine, 27 grammes water. No. 2 is filled with a thick brown fluid, which from decomposition has produced a deposit sometimes brown, sometimes gray. This partly-decomposed fluid was originally a mixture of silver nitrate, 3.5 grammes; ammonia, 4.5 grammes; gum arabic or some similar mucilage, 2.5 grammes; distilled water, 23 grammes. No. 3, labelled "Fixateur," contains 7.5 grammes fluid, consisting of .5 gramme sodium sulphide, 7 grammes distilled water. The directions for use, translated into various languages, say—Dissolve 10 grammes subcarbonate of soda in half a litre of warm or cold rain-water, and with this wash the grease from the hair. Afterwards rinse it in clear water, and dry it thoroughly with a cloth. Pour one part of fluid No. 1 into a saucer, and with brush No. 1 apply it to the roots of the hair. Allow it two or three minutes to dry, then rub the hair with an old linen cloth to remove the superfluous moisture. Next repeat the operation, using fluid and brush No. 2, and without waiting wash the hair with warm or cold soapy water. This hair dye is quite harmless, and leaves no marks on the skin behind it. *To use it for the Beard.*—The process is the same as that for the hair, except that instead of the soda solution, ordinary soap is to be used to cleanse the beard from grease. It often happens that when the user of the dye has not taken ordinary care in cleansing the hair, the latter becomes of a false and unnatural tint. In this case the Fixateur should be used. A small sponge should be moistened with this and passed over the hair, which will make the color natural and glossy. The Fixateur as well as the sponge must only be used in this way. It may be employed two days after the first operation without it being necessary to dye the hair anew.—*Hager.*

Eau Antique de Chalmin is a perfumed solution of tannin.

Eau Tonique Parachûte des Cheveux (composée par Chalmin, perfumer).—To prevent the falling of the hair. Macerate some pieces of violet root for some days in 120 grammes rose-water, filter, and add to the fluid 2 decigrammes sulphate of iron, 3 drops vinegar, 1.3 grammes each of tincture of benzoin and balsam of Peru, 7.5 grammes Provence oil, and 10 drops oil of bergamot.—*Dr. Casselmann.*

Eau Virginale (Chable).—Lead acetate, zinc sulphate, of each 1 part; distilled water, 28 parts; eau de Cologne, 12 parts. Dissolve and mix; allow to stand for a month and filter. A spoonful mixed with a glass of water to be used as a vaginal injection.—*Reveil.*

Edelenzianwurzelsaft.—Noble Gentian-root Juice—Enzian Extract—Extract of Gentian (Hagspiel Brothers, Oberstaufen).—A water-clear, colorless Schnapps, which contains much fusel oil, and has had some of the spirit removed, distilled from gentian plant.—*Hager.*

Iron Reduced by Electricity (Collas, Paris).—Gelatine capsules of the size of a 2-grain pill, filled with powdered blacksmith scales (black oxide of iron).—*Hager.*

(Continued from the *London Chemist and Druggist.*)

Simple Elixir.—

Spirit of orange (1 : 10)	2 fl. ʒ.
" " cinnamon (1 : 10)	10 min.
Alcohol	4 fl. oz.
Syrup	6 fl. oz.
Water	6 fl. oz.

Dissolve the spirits in the alcohol; gradually add the water; rub a portion of the solution to a smooth, thin paste with precipitated chalk, and then incorporate the rest of the solution with it; transfer the mixture to a well-wetted plaited filter, which should be filled full, so that the chalk may help to stop up the larger pores of the filter; return the first portions, until the filtrate runs off clear; wash the chalk on the filter with enough water to make the filtrate measure 10 fl. oz. Then add to it the syrup. The chalk should be gently dried on the filter, and utilized for a fresh quantity of elixir.

Elixir of Quinia and Iron.—

Citrate of iron and quinia (soluble).. 256 grains.
Water ... ... 1 fl. oz.
Simple elixir... ... 15 fl. oz.

Dissolve and mix. One teaspoonful contains 2 grains of citrate of iron and quinia.

Elixir of Calisaya and Bismuth.—

Ammonio-citrate of bismuth... ...256 grains.
Fluid extract of cinchona... ... 3 fl. oz.
Simple elixir... ... 13 fl. oz.

Dissolve the ammonio-citrate of bismuth in the simple elixir, adding, if necessary, a few drops of ammonia to facilitate solution; then add the fluid extract and filter.

Elixir of Valerianate of Ammonium.—

Ammonium valerianate... ... 256 grains.
Simple elixir... ... 16 fl. oz.

Dissolve and mix. Each teaspoonful contains 2 grains of the salt.

It is customary to color this elixir; for this purpose a sufficient quantity of tincture of cochineal may be used; a much preferable coloring matter, however, is furnished by the berries of *Vaccinium Myrtillus*, bilberry or whortleberry, which is highly recommended for this purpose by one of our correspondents.

Elixir of Pepsin and Bismuth.—

We give a formula for this elixir only by request of one of our subscribers, but cannot recommend it. It is our firm conviction that pepsin should not be administered in such a combination, as it is partly precipitated, and probably rendered entirely inert. However, the following has been much used:

Ammonio-citrate of bismuth... ... 256 grains.
Saccharated pepsin ... 256 "
Spirit of orange... ½ fl. oz.
Syrup ... 2 fl. oz.
Sherry wine ... 16 fl. oz.

Ammonio-citrate of bismuth is decomposed in an *acid* solution, while pepsin requires an acid to make it active; hence, on theoretical grounds alone, the above preparation seems to be incompatible.

Citrate of Iron, Quinia, and Strychnia.—

Citrate of iron and quinia (soluble).. 256 grains.
Citrate of iron and strychnia (1 per cent)... ... 128 grains.
Water, warm... ... 1 fl. oz.
Simple elixir... ... 15 fl. oz.

Dissolve and mix. Citrate of iron and strychnia, of the U. S. Ph. of 1870, contains only 1 per cent of strychnia, while that of the U. S. Ph. of 1860 contained 2 per cent. One teaspoonful of the above elixir contains 2 grs. of citrate of iron and quinia and 1 grain of citrate of iron and strychnia; or about $\frac{1}{100}$ grain of strychnia citrate.

Elixir of Calisaya.—

Fluid extract of cinchona... ... 3 fl. oz.
Simple elixir... ... 13 fl. oz.

In this condition, this elixir should not be mixed with preparations of iron, as it would become dark-colored. To facilitate its filtration, it may advantageously be made by mixing the fluid extract with all the ingredients for the simple elixir, except the syrup, filtering through paper, and then adding the syrup.

Elixir of Gentian and Iron.—

Pyrophosphate of iron... ...256 grs.
Fluid extract of gentian ... ... 1 fl. oz.
Simple elixir... ... 15 fl. oz.

Dissolve the pyrophosphate of iron in the simple elixir; then add the fluid extract. It will, however, be found to be more convenient to make this elixir by the following formula:

Pyrophosphate of iron... ...256 grains.
Fluid extract of gentian... ... 1 fl. oz.
Water... ... 7 fl. oz.
Spirit of orange (1 : 10)... ... 2 fl. ʒ.
" " cinnamon (1 : 10)... ... 10 min.
Alcohol... ... 5 fl. oz.
Syrup... ...q.s. ad 16 fl. oz.

Dissolve the pyrophosphate of iron in the water; dissolve the spirits in the alcohol; mix the two solutions and add the fluid extract. Then filter, and finally add the syrup.

Elixir of Chloral Hydrate.—

Chloral hydrate, crystallized... ... 640 grains.
Simple elixir... ... 16 fl. oz.

Dissolve and mix. Each teaspoonful contains 5 grs. of chloral hydrate.

Elixir of Beef, Iron, and Wine.—

Extract of beef (Liebig's)... ... ½ troy oz.
Ammonio-citrate of iron... ...256 grains.
Spirit of orange (1 : 10)... ... ½ fl. oz.
" " anise (1 : 10)... ... 1 fl. oz.
Water... ... 1½ fl. oz.
Syrup... ... 6 fl. oz.
Sherry wine, q.s. ad... ... 16 fl. oz.

Dissolve the ammonio-citrate of iron in the water; rub the extract of beef with the sherry wine, gradually added, until it is apparently dissolved. Then add the spirits. Let the whole stand in a *cold* place for at least 48 hours; then filter.

Compound Elixir of Taraxacum (Form. of Am. Pharm. Assoc., 1871).—

Fluid extract of taraxacum... ... 6 fl. oz.
" " " gentian... ... 1 fl. oz.
Oil of orange... ...100 drops.
" " cinnamon... ... 12 "
" " anise... ... 10 "
" " caraway... ... 5 "
" " coriander... ... 20 "
Extract of licorice... ... 1 oz.
Syrup of wild cherry... ... 2½ pints.
Alcohol... ... 1½ "
Water... ... 4 "

Mix the oils with the alcohol, and the extracts with the syrup, add the water, and filter.

Eau de Millefleurs (*Dr. Bering*).—

Oil of neroli...	50	drops.
" rose...	80	"
" lavender...	18.7	grammes.
" cinnamon...	18.7	"
" cloves...	37.5	"
" lemon...	56	"
" bergamot...	75	"
Musk...	1	"
Vanilla...	3	"
Cologne spirits...	1800	"

Digest 14 days and filter.

Eau de Portugal (*Dr. Bering*).—

Oil of rose...	10	grammes.
" lemon...	50	"
" bergamot...	50	"
" portugal...	100	"
Cologne spirits...	3	litres.

Eau de Liegnitz (*Dr. Bering*).—

Oil of cinnamon...	30	grammes.
" cloves...	30	"
" rose...	10	"
" lavender...	20	"
" neroli...	40	"
" lemon...	60	"
" bergamot...	80	"
Balsam of Peru...	120	"
Tinct. of benzoin*...	240	"
Ambergris...	3.3	"
Musk...	1	"
Cologne spirits...	3	litres.

Unguentum Wilkinsoni (North-west. Dispensary).

℞. Flor. sulphur.,
Ol. cadini... ...āā ʒ iv.
Cretæ albæ... ...gr. clx.
Sapon. virid.,
Adipis... ...āā ℥ i.

*192.5 grammes of gum benzoin extracted with 1 litre of cologne spirits.

NEW PATENTS.

[*The following list is compiled from official sources, especially for* NEW REMEDIES, *by S. H. Wales & Son, Solicitors of Patents,* 10 *Spruce St., New York, who will furnish gratis to subscribers any information relating to this department.*

PATENTS GRANTED DURING FEBRUARY, 1878.

(*Concluded.*)

February 19th.

Bottle register, W. S. Lynn	200,552
Bottle-stopper, L. Rose	200,409
Carburetter, W. H. Reed	200,568
Dental plate, V. D. Fahnestock and L. A. Powell	200,445
Faucet, V. O. Waddell	200,416
Insect and vermin fumigator, F. Hausen	200,529
Insect-exterminator, N. T. Daughbrey	200,376
Scales, platform, A. B. Pearson	200,406
Scales, weighing, C. A. Fredericks	200,386

February 26th.

Bottle-stopper fastener, G. F. Outten	200,666
Charcoal-kilns, W. A. Miles	200,662
Coal, purifying, P. F. Morey	200,663
Dental-plate mould, G. F. Reese	200,760
Dental-plates, making moulds for, G. F. Reese	200,761
Electro-machine, dynamo, E. Weston (R)	8,102
Filter, water, J. Foley	200,608
Lead, white, manufacturing of, G. L. Irwin	200,726
Scales, spring, J. A. & J. S. George	200,708
Scales, platform, S. J. Austin	200,683
Scales, spring, W. B. & J. S. Ross	200,765
Syrup, flavored, H. W. Walker & T. L. Patterson	200,780

PATENTS GRANTED DURING MARCH, 1878.

March 5th.

Alkalies and preparations of alumina, manufacture of caustic, C. Lowig	201,028
Bath, vapor, C. Jansen	200,916
Bottle-stopper, J. W. Curtis	200,984
Bottle-stopper, A. F. Dietz	200,991
Bottle-stopper, W. H. Hicks	201,011
Cooler, liquid, C. A. Moss	200,925
Dentists' slab and bottle-holder, E. F. Hanks	200,829
Gas-retort, J. Burns	200,820
Hydrometer cup and thief combined, C. Cox	200,981
Lozenge machine, T. Robertson	201,049
Medical compound, H. and M. Hawkins	201,010
Obstetrical supporter, J. Loree	201,027
Syringes, cap for glass, E. Hagerty	200,909

March 12th.

Effervescent liquid drawing apparatus, F. W. Wiesebrock	201,141–201,212
Electrode for curative purposes, galvanic, W. A. Candee	201,157
Filter, water, J. Foley	201,102–201,103
Medicated oil, J. H. Normand and L. Dufilho	201,194
Tap and faucet combined, M. A. Farrell	201,172

March 19th.

Amalgamator for stamp mills, L. M. Boardman	201,321
Alloy, bronze, E. C. Kirk	201,536
Faucet-lock, F. C. Lillis	201,430
Faucet, measuring and indicating, A. J. Johnson and C. O. Everts	201,533
Filtration, C. Gerson	201,516
Fire-arm, A. Henry and D. Fraser	201,524
Funnel, D. Williams	201,472
Gas apparatus, hydrocarbon, C. Holland	201,527
Syringe, hypodermic, T. S. Parker	201,443

ITEMS.

Board of Pharmacy of the City and County of New York.—A special meeting of the College of Pharmacy of the City of New York was held on Monday, June 3d, at the new college buliding, 209–211 East 23d St., for the purpose of electing a new Board of Pharmacy, to serve for three years, the time of service of the present Board expiring on that day. Before the meeting proceeded to election, Mr. Theobald Frohwein, the Secretary of the retiring Board, read the report of the transactions of the Board of Pharmacy during the last three years, from which we reproduce here the most interesting passages.

"On June 15th, 1875, the Board of Pharmacy, elected by the College, and consisting of W. de F. Day, M.D., Benj. E. Hays, M.D., Wm. Balser, M.D., Gust. Ramsperger, Ph.G., and Theob. Frohwein, Ph.G., organized by electing Dr. Day President and Mr. Theob. Frohwein Secretary.

"At this meeting it was resolved that the Board should meet for the examination of candidates on the first Wednesday in each month. The secretary was ordered to keep office hours for registration on the first and third Wednesday of each month. It was further resolved that Dr. Day should examine in Botany and Materia Medica, Dr. Hays in Toxicology and Doses, Dr. Balser in Pharmacy, and Mr. Ramsperger in Chemistry and Reading of Prescriptions. Mr. Frohwein, on account of being secretary, was appointed alternate examiner in case of the absence of one of the other members.

"The Board held one meeting for organization, 12 stated, 3 special, and 36 examination-meetings. At the different examinations, 233 candidates presented themselves, of which 153 were examined once, 53 were examined twice, 13 three times, and 4 appeared for a fourth time, and one deferred his examination.

"Of the candidates, 46 were proprietors, of which 22 failed; 177 were assistants, of which 85 failed. The total number of successful candidates was 115; and the total number of failures 107, or nearly one-half. The number of registrations are: 69 proprietors and 139 assistants; total 208.

"The income of the Board amounted to $1,104.96; the expenditures to $1,281.58, which is apparently a deficiency of $176.62. This is, however, more than balanced by a stock of "Poison Books," printed by the College, and charged to the Board of Pharmacy, of which only a small number have been sold thus far. It may therefore be said that the Board of Pharmacy have been self-supporting."—Too much praise can hardly be bestowed upon the members of this most useful Board, who, without remuneration (excepting the Secretary, whose salary is only $200), have given a considerable share of their time towards the objects for which the Board was established, and for which the public, who are *not* taxed for its support, should be duly thankful.

The following gentlemen were elected as members of the Board of Pharmacy to serve for the ensuing three years: W. de F. Day, M.D., Benj. E. Hays, M.D., Wm. Balser, M.D., Theobald Frohwein, Paul Balluff.

Alumni Association of the Massachusetts College of Pharmacy—At the annual meeting, held 2d May, the following officers were elected: President, L. C. Flanagan; Vice-Presidents, W. U. Bartlett, C. P. Orne; Secretary, S. A. D. Sheppard; Treasurer, John C. Lowd; Auditor, E. S. Kelley.

The Recent Massachusetts Law, Regulating the Sale of Intoxicating Liquors by Druggists and Apothecaries, adds a "*sixth class*" to section seven, of chapter ninety-nine, of the acts of 1875, which provides that licenses may be granted to druggists and apothecaries to sell liquors of any kind for medicinal, mechanical, and chemical purposes only, and to such persons as may certify in writing for what use they want it; the fee for which license is to be one dollar. Every person licensed under

the provisions of this act will be required to keep a book in which the following entries are to be kept: the date, name and residence of the purchaser, kind and quality of liquor sold, purpose or use, and the price; which book, and the certificates, are to be open for inspection by certain designated officials.

American Pharmacy at the Paris Exposition.—The *Chemist and Druggist*, of London, in commenting upon the pharmaceutical exhibitors at Paris, this year, says that Messrs. Tilden & Co., chemists and pharmaceutists, of New York, occupy a large space, some 20 feet square, and have erected a bold pavilion, wherein they show specimens of their many products for physicians' use, with "Shaker" drugs, native herbs, etc. They are represented at the exhibition by Dr. Merckel.

Messrs. Wyeth Bros., of Philadelphia, are exhibitors of pharmaceuticals; Messrs. C. T. White & Co., of New York, of fine chemicals; Messrs. F. W. Howitt & Bros., New York, of native drugs; Mr. H. G. Hotchkiss, of Lyons, New York. Messrs. Hale & Parshall, of the same place; and Messrs. Fritzsche Bros., of New York, all exhibit essential oils; Messrs. H. & J. Baker, of Philadelphia, "crystal" castor oil, with camphor, borax, etc.; Messrs. S. S. White, of Philadelphia, show dental appliances. The last European competition at Vienna won for this manufacture great credit and a diploma of honor. The Philadelphia College of Pharmacy sends a collection of native drugs which will, no doubt, prove interesting, but we did not see it unpacked.

Chinese Medicine Factory.—Two Chinamen, Loo Lum Sing, and Chock Fan, have recently leased a building in Newark, N. J., in which they intend to commence the manufacture, on a large scale, of medicines peculiar to their nationality. It is intended to supply not only the demand in this country, but to export to the Chinese market.

Substitute for Gutta-Percha.—A hardened resin of the so-called bully-tree, found on the banks of the Amazon and Orinoco, is being used as a substitute for gutta-percha. Each of these trees yields from one-third to one-half kilogramme of balata each year. This substance is so similar in appearance and properties to gutta-percha that it is often imported as such. It is tasteless, has the same smell as gutta-percha when warmed, has the same leather-like toughness, but is far more elastic. At 50° C. it becomes plastic, and melts at 150° C., hence at a higher temperature than gutta-percha. It is partly soluble in pure alcohol and ether, but completely soluble in warmed turpentine, and in benzol and carbon disulphide, even when cold. It becomes strongly electrified when rubbed, and is a better insulator for heat and cold than gutta-percha, and will doubtless soon find an application in electrolysis. The caustic alkalies and concentrated hydrochloric acid have no action upon the balata, but warmed concentrated nitric and sulphuric acids have the same violent action upon it as upon gutta-percha.

Soaps.—Among all the articles with which civilization in its progress has blessed man, there is none so common, so necessary, or whose absense is so quickly seen, felt, and it might be added, smelt, as soap. The first positive mention of soap in ancient times was by Pliny in his "Natural History" (the article so called in the Scriptures not being soap at all, but a simple alkali). He speaks of it as an invention of the Gauls, who made it from tallow and beechwood ashes. Although none of the modern writers claim that the present race of Gauls is first in the manufacture of soap, the invention may be safely conceded them. From Pliny's time, soap is not unfrequently spoken of. Athenæus, who flourished A.D. 193, speaks of it; and Aëtius, a writer of the fourth century, alludes to it. Its use does not seem to have become popular until the invention of the shirt by the Saracens—always a cleanly race—rendered it a necessity. When the first soap factory was started in this country is not known to a certainty, but at present its manufacture is a most important industry in the country, as may be judged from the fact that some $20,000,000 are employed in the business, seven hundred factories, one hundred and forty being in the State of New York, are now engaged in the manufacture of plain and fancy soaps, able both as to quality and price to compete with the English and French articles in any market in the world. The present production of the United States now foots up to $50,000,000 annually.

The Indian Opium Crop.—The Bombay *Gazette* says: "The opium revenue of 1877–78 bids fair to exceed the estimate of last spring by a considerable sum. The deficient rainfall last autumn has very seriously affected the Malwa crops of 1878, so much so that the best authorities anticipate that the opium yield this year at Malwa will not exceed one-half of an average year's out-turn. Of course, the deficient crop will cause prices of Malwa opium to rise; already they have risen about twenty-five per cent. There will therefore be a short supply of Malwa opium to China this year—a result calculated to stimulate production and competition there. The Government of India is not at liberty to make good the deficiencies of the Malwa crop this year from the reserve of Bengal opium in store, because the quantity of the Bengal drug for sale in 1878 has been already notified, and cannot be increased in good faith, but in order to keep down prices as much as possible meanwhile, and to supply some part of the deficiency of the Malwa crop as soon as they can, the Government of India has decided to sell, during the year 1879, 60,000 chests of Bengal and Benares opium, being 6,000 chests more than the quantity notified for sale in 1878. We understand that at present there is no intention to raise permanently the annual provision of Bengal opium to this high figure, which, indeed, probably could not be maintained."

Cinchona, which was introduced into India in 1861, promises not only to prove a medical boon to the population, but also to become an article of commercial value. Already nearly 3,000,000 trees have been planted, and the revenue derived by Government sales from this source in 1876 amounted to £29,000.

New School of Pharmacy in Edinburgh.—There was opened during the first week of May, in Edinburgh, in Marshall Street, a School of Pharmacy and Chemistry, of which the object is to prepare students for the major and minor examinations of the Pharmaceutical Society. The lecturers are Mr. R. Urquhart, in Materia Medica; Mr. T. W. Drinkwater, in Chemistry; and Mr. D. McAlpine, in Botany.

Disadvantage of Salicylic Acid as a Dentrifice.—After long use of salicylic acid, either in mouth-washes or as a tooth-powder, there is developed, according to Dr. Dobrowski, an unpleasant odor to the breath. This phenomenon depends upon a decomposition caused by free salicylic acid. Salicylic acid is of itself a good tooth-powder, but if some of it remains in the mouth—an accident that can hardly be prevented—it decomposes in very small quantity the sulpho-cyanide of potash, one of the constituents of the saliva, whose function is to arrest decomposition in food debris [? Ed.]. It is the odor of decomposition thus permitted that is exhaled by the breath.

Revision of the Pharmacopœia in Boston.—The Suffolk District Medical Society of Massachusetts was recently addressed by Prof. G. F. H. Markoe on the subject of pharmacopœial revision. Discussion occurred on the propriety of mentioning the dose of each remedy in connection with the matter relating to its preparation. The whole subject of pharmacopœial revision was at length referred to the councillors.

New Anæsthetic Mixture.—According to Dr. Wachsmuth, a *safe* and *agreeable* anæsthetic may be prepared by adding to chloroform one-fifth of its weight of oil of turpentine. The latter is said to stimulate the lungs and protect them against congestion, while at the same time it volatilizes the chloroform more equally and augments its anæsthetic power. [Very questionable!—*Ed.*]